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Ol. Aurantii Dulc.

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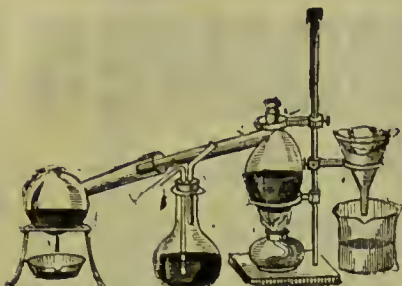


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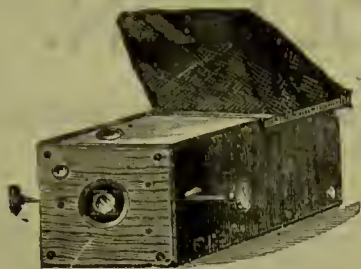
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Fig. 13.

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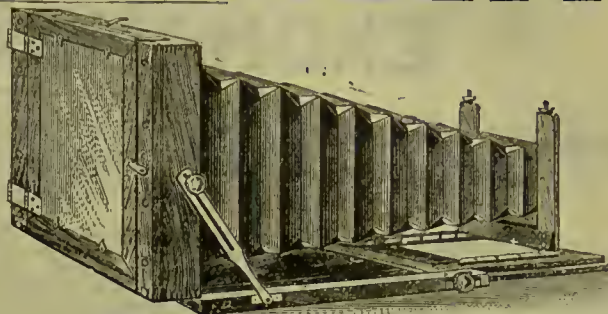


Fig. 14.

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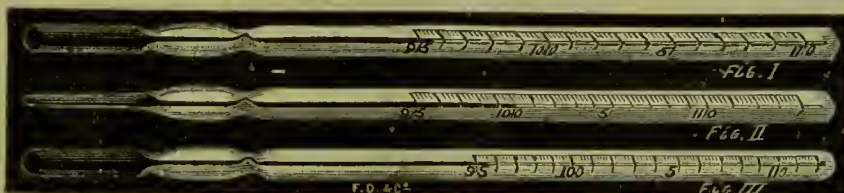


Fig. 16.

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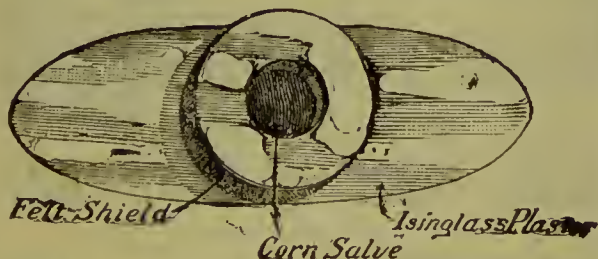
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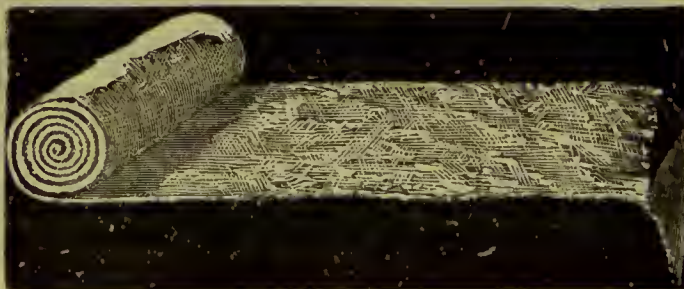
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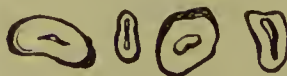


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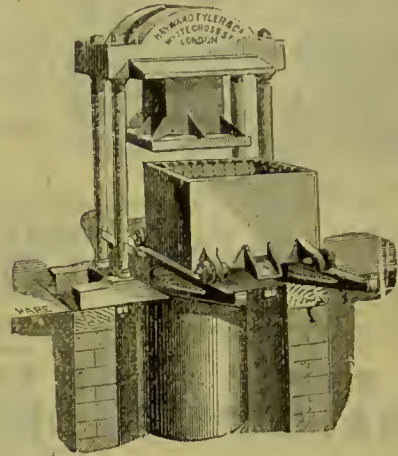
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SNUFF, TOBACCO, AND SEGAR MANUFACTURERS.



Write for List of Specialities.

NONE GENUINE WITHOUT THE



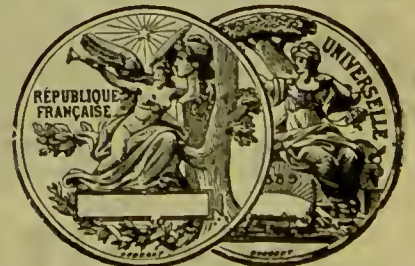
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TOWER TEA

HIGHEST AWARD, PARIS, 1889.

Analysts by the "LANCET," December 20th, 1890:—

"We have submitted to examination the Teas of the Great Tower Street Tea Company (Limited). They all yield liquors which are generous to the taste, and of full strength and vigour. The results of our analysis indicate the purity and genuineness of the samples."



PRIZE MEDAL, PARIS, 1889.

Where Vacancies exist, Agencies are appointed by

THE GREAT TOWER STREET TEA CO., LIMITED
5 JEWRY STREET, LONDON, E.C.

A1 MENTHOL CONES.

LEADING LINES.

1d. Vase or Pedestal 6/6 gross.	No. 8P. 6d. Pedestal Acorn, boxwood 3/3 doz.	No. 107B. 4d. Boxwood Pedestal .. 2/6 doz.
1d. Bottle 6/- "	" 111. 1/ " " " 5/6 "	" 113R. 6d. " Reversible .. 3/6 "
2d. Pedestal, Varinshed .. 14/- "	" 11. 4d. " " " 2/3 "	" 9CR. 1/ " " " 4/6 "
2d. Barrel " .. 14/- "	" 109. 4d. " polished willow 2/6 "	" 117. 6d. Monster, Willow .. 3/3 "
3d. Draughtsman " .. 18/- "	" 40. 6d. Watch shape .. 3/3 "	" 112. 6d. Draughtsman .. 3/3 "
1d. and 2d., 3 dozen on Card.	" 7B. 9d. Barrel. printed boxwood 4/6 "	" 14L. 1/ Pedestal, printed box .. 6/3 "
3d., 2 dozen on Card.	" 113P. 6d. Skittle " " 3/6 "	" 17F. 1/ Flat, printed .. 5/6 "
	" 1. 4d. S. C. Bottle .. 2/9 "	" 5. 1/ S. C. Bottle .. 5/- "
	" 3. 6d. " " 3/6 "	" 30. 4d. Glass Shade .. 2/- "
		" 31. 9d. " " " 5/- "

A1 MENTHOL AND SMELLING SALTS COMBINED, in Boxwood case and English Stoppered Bottle 8/- doz.
TOOTHACHE ESSENCE " in Willow case, 2 dozen on Card, 2d. retail 1/3 doz., 12/- gross.
 " " " " " in Boxwood case, 1 dozen in Box, 6d. retail 3/9 doz.

ETIENNE FRÈRE'S PERFUMERY.

Beautiful Perfume, attractively put up. Leaves good margin of profit to the retailer.

6d. size, in cut stopper bottle 4/ doz. 44/ gross.	
6d. " 1/2-oz. essence, with sprinkler .. 3/9 " 40/ "	
6d. " " corked and capped .. 3/6 " 38/ "	
6d. " 1/2-oz. stoppered bottle, capped .. 4/- " 44/ "	
1/ " 1-oz. fancy cut stopper 8/- " — "	
3d. " in very pretty oval bottle, fitted with sprinkler, 1 doz. on card, or in box .. 2/- " — "	
2d. " in pretty bottle, capped, well got up, 2 doz. on card, or 1 doz. in box .. — 14/ "	
Sample 1d. Tubes, 3 doz. on card, tinboxed over cork — 8/ "	



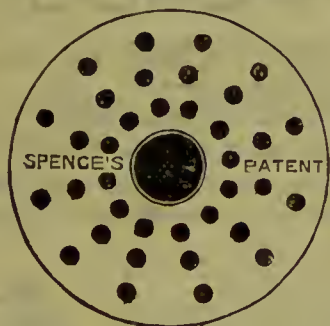
*1/ stoppered Lundborg shape bottle, capped, tied with assorted coloured ribbons, 1 doz. in glass-top box 1 oz., 8/ doz.
 *1/6 ditto ditto ditto ditto .. 2 oz., 13/ "
 *2/6 ditto ditto ditto ditto .. 3 oz., 24/ "

*Buyers of 3 dozen of above series can have their own name stamped on label in place of Etienne Frères' FREE OF CHARGE. This is a great inducement, as Chemists get a first-class article, beautifully put up, at a price they cannot produce it in small quantities.

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A New and Attractive Easel Show Card given away to Buyers of these Perfumes.

GIVE THESE A TRIAL without prejudice, and you will find them give great satisfaction.



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Now being sold by so many of the Trade. The advantages of these Shields are very great, as they are perforated, thus allowing free respiration. The natural organ for breathing is the nose, but babies are more often than not stopped from the power of breathing through it by colds, &c., and must of necessity breathe from the mouth, in which case this shield is a great boon, as it prevents suffocation.

Small size, 3 dozen on card .. 5/ gross	
Large " 3 " " .. 10/ "	
Assorted 3 " " .. 7/6 "	

SOOTHERS Fitted with Spence's Patent Shields.	
No. 1. 3d. bony mount, with cord fitted for neck 2/ doz.	
" 2. 4d. bony mount and ring .. 2/6 "	
Seamless " 3. 6d. " " 3/6 "	
Teats. " 4. 6d. " rubber ring 3/6 "	

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THE SPECIAL PARCELS OF SMELLING & TOILET BOTTLES, SPRAYS, AND NICKEL-CAPPED CHINA BOTTLES

Are still being offered. 23/ worth of either, or assorted, sent for 20/; this is a *bona fide* opportunity of getting a good assortment at almost cost price, and it is really unwise to pass it over.

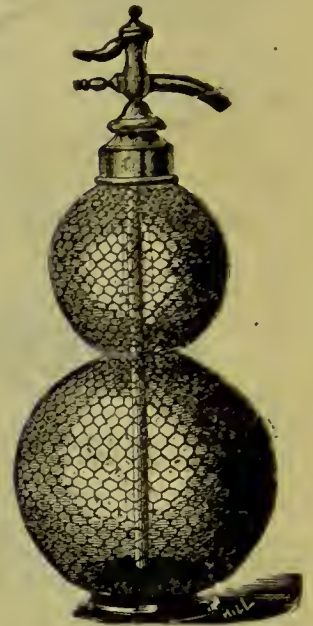
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**SODAWATER
MACHINERY**
AND APPLIANCES
BRATBY & HINCHLIFFE LTD
ANCOATS 146 MINORIES
MANCHESTER & LONDON EC
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All our Seltzogenes are manufactured on the well-known "Fevre" System, and each one is thoroughly tested before leaving the works.



PRICES.

SYPHONS ... 1/6 1/8 and 1/10 each.

SELTZOGENES.

1	2	3	4	5	8 pint.
5/6	6/2	7/	8/	9/11	15/6 each.

SYPHONS & SELTZOGENES PORCELAIN LINED HEADS.

NON-METALLIC.

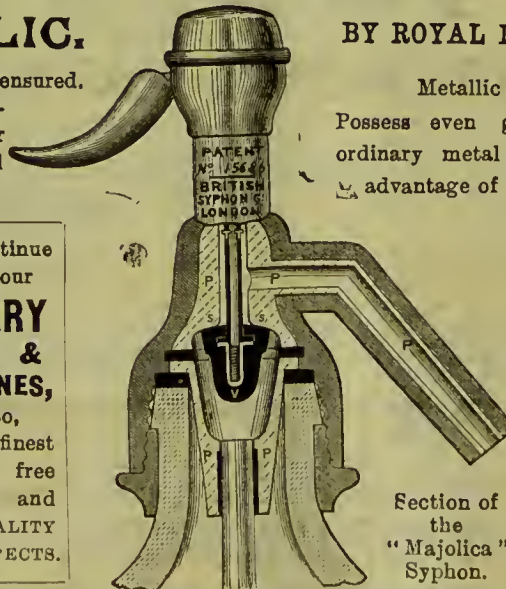
Absolute Purity of the Water ensured.
Suitable for all kinds of beverages, sweetened, medicinal, or otherwise. Each Syphon and Seltzogene guaranteed.

BY ROYAL LETTERS PATENT, No. 15686.

Metallic contamination utterly impossible.
Possess even greater strength and durability than ordinary metal heads, combined with the immense advantage of always being clean and non-oxidisable



We still continue to warrant our
**ORDINARY
SYPHONS &
SELTZOGENES,**
as hitherto, to be of the finest tin, entirely free from lead, and FIRST QUALITY IN ALL RESPECTS.



Section of the "Majolica" Syphon.

WRITE FOR SAMPLE AND SEE OPINION OF THE ENTIRE TRADE PRESS.

Prices and Particulars on application to the Patentees and Manufacturers.



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EUGSTER & KOERTGEN PROPRIETORS

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WORKS-LAMBETH.

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PURVEYORS OF MINERAL WATERS

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TO

HER MAJESTY

THE QUEEN

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Concentrated Fruit Essences—Soluble

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Who has received Hundreds of Unsolicited Testimonials, also THREE GOLD MEDALS, besides other Honours.

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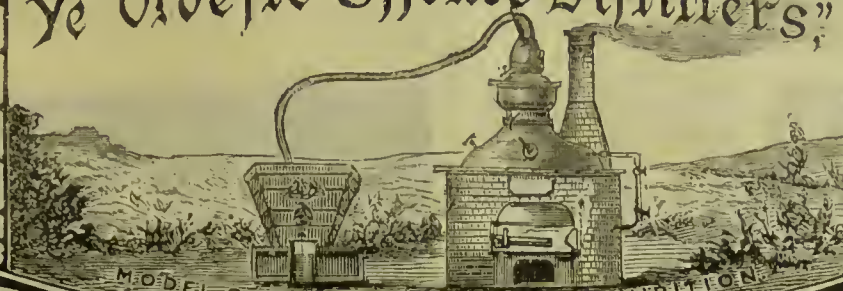
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The most Delicious Ginger Ale Essences.
ESSENCES FOR WINTER DRINKS.

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Fine Bright Harmless Colorings,
BUSH'S PRESERVATIVE FOR KEEPING DRINKS BRIGHT,
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MANUFACTURED FROM ANALYSES OF NATURAL SPRINGS,

All Requisites for AERATED WATER MAKERS.

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UNRIVALLED

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Most Delicious Sauce in the World. Bottles, 6d., 1s., and 2s. each

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Delicious Custards without Eggs. In Boxes, 2d., 6d., and 1s. each.

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Best Tonic yet Introduced. Bottles, 6d., 1s., and 2s. each.

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For Painting Stoves, Grates, Iron, Tin, &c. 6d. and 1s. Bottles.

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Make a Delicious and Nutritious Jelly. In ½-pint, 1-pint and Quart Boxes, 3d., 6d., and 1s. each.

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SOLUBLE ESSENCES

ARE GUARANTEED TO BE THE FINEST IN THE MARKET

GINGER. HOR. LEMON &c &c

W. HAY, MANUFACTURING CHEMIST

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IN ORDERING SPECIFY HAY'S MANUFACTURE

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HOSPITAL FOR CONSUMPTION, BROMPTON.
Order No. 1090.
"Please supply 120 tins Mason's Essence of Beef as before."



ST. MARY'S HOSPITAL, PADDINGTON.
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"Please send at once 3 tins Mason's Essence of Beef."

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The "O.K." Bouillon is the best and cheapest Beef Tea ever put before the public. It is made in England from British Beef. It can be sold as low as 6d. per tin.

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MASON'S MALTED FOOD FOR INFANTS.

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The MOST DELICIOUS and LEAST COSTLY, for

BABIES, CHILDREN (any age), INVALIDS, AND ADULTS

The INVENTION of

DR. T. R. ALLINSON,

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The Eminent Hygienic Physician, and Authority on Health and Diet, and each Packet bears his Autograph.

This FOOD is not highly spiced, or chemically prepared, but

A PURE and NATURAL FOOD.

PACKETS, 1d., 3d., 6d., 1s. EACH.

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MEAT COMPANY, LIM.,

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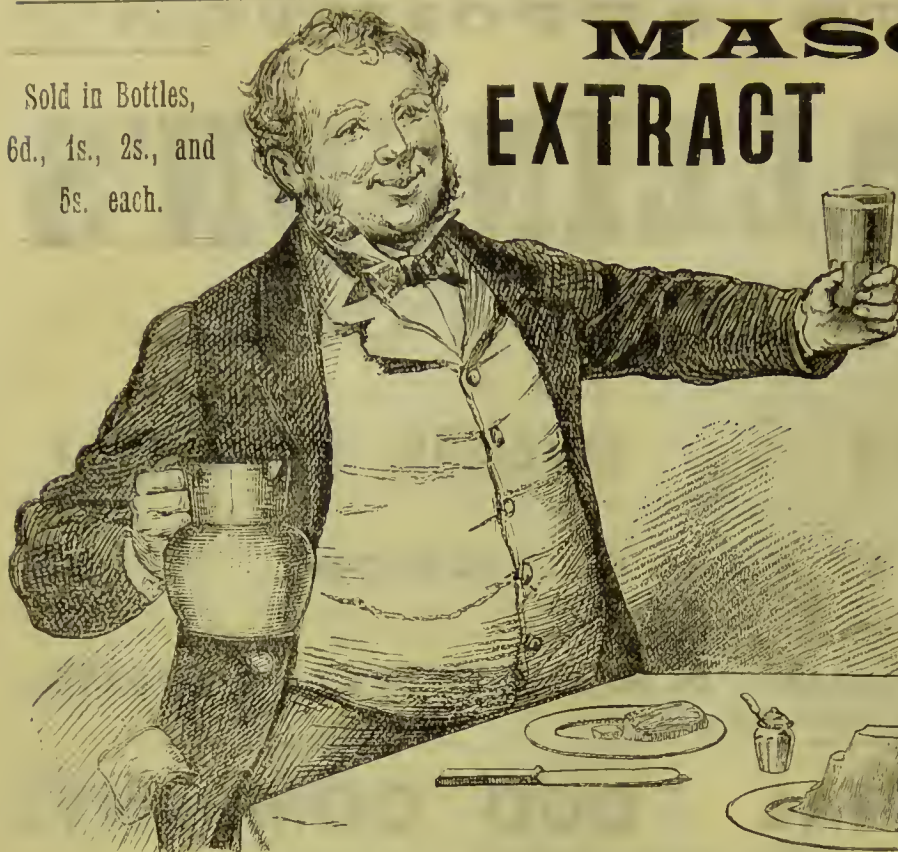
Description will best be appreciated with the articles before you, therefore you are invited to send for a free sample of

DENAAYER'S STERILIZED PEPTONE OF MEAT (2/- per bottle, ready for use).**DENAAYER'S LIQUID PEPTONATE OF IRON (1/6 per bottle).****PULVIS FERRI PEPTONATIS (Denaayer), 4/- per ounce.****PEPSINA PORCI (Denaayer), 3/- per bottle, one-third of an ounce.**

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MASON'S EXTRACT OF HERBS

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ORIGINAL AND BEST

For the production of **BOTANIC BEER**, a **NON-INTOXICATING BEVERAGE**, full of body and flavour, with a creamy head like Bottled Ale. The most perfect substitute for Alcoholic Drinks ever discovered for either Summer or Winter.

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Numerous Imitations are being offered, but none can compare with ours.

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NEWBALL & MASON,
Manufacturing Chemists and
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Also
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GINGER ALE EXTRACT, GINGER EXTRACT, HOP EXTRACT, FOAMINE, LEMONINE, HOREHOUNDINE, AND WINE ESSENCES.

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IT IS NEITHER POISONOUS NOR INJURIOUS

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A delicious beverage, non-alcoholic and perfectly pure; guaranteed to be prepared from fresh and specially selected Fruit only.

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LEMON-RASPBERRY is bottled in special bottles, and is attractive in appearance and agreeable in flavour.

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The excellence of the perfume and the superior make of these Cachous create a great demand wherever they are introduced.

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Parcels of 14 lbs. forwarded carriage paid, with a handsome Glass Show Jar gratis (fig. A, No. 5, Maw's list), on receipt of P.O.O. for 33s.

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The Tannin Minimised.

ABSOLUTELY PURE.

EASILY DIGESTED.

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CARLTON WORKS, MANCHESTER,

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Have now completed their **EXTENSIVE ALTERATIONS**, New Machinery and the most modern Appliances making their works the most complete of the kind in the Kingdom.

GLYCERINE PASTILLES,

One of their Specialities, but with the demand for which they have hitherto been unable to cope. They will now be in a position to send out in any quantities, and buyers need no longer fear having half quantities sent.

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BOILED SUGARS

Plant and Machinery equal to a producing power of 1 Ton per day.

COMPRESSED PELLETS.

ALL KINDS IN ANY QUANTITIES.

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Thessier, E.

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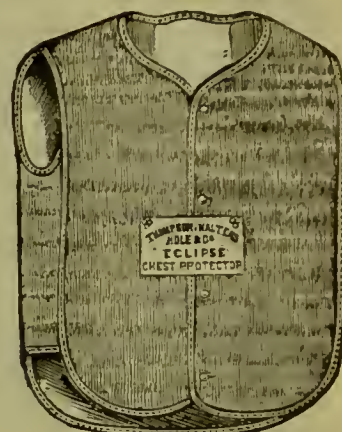
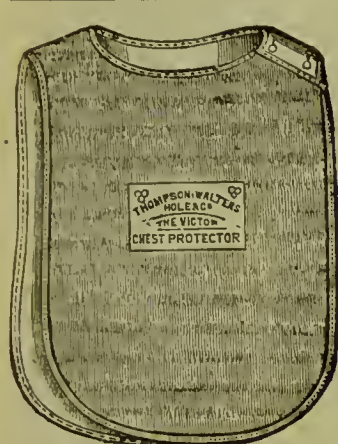
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The Pharmaceutical Association of New Zealand.

The Pharmaceutical Society of Queensland.

The Pharmaceutical Society of South Australia.

Tasmanian Pharmaceutical Society.

Otago Pharmaceutical Association.

South African Pharmaceutical Association.

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EDUCATIONAL INFORMATION.

THE next issue of THE CHEMIST AND DRUGGIST will contain a very complete article on the educational requirements of the pharmaceutical, medical, scientific, dental, and veterinary professions. We particularly request secretaries of local associations, which have educational arrangements for pharmaceutical students, and the secretaries and deans of schools and colleges, who have not yet sent us particulars of their classes, to do so by the beginning of the week.

This issue of THE CHEMIST AND DRUGGIST provides an exceptional opportunity for announcements regarding educational establishments, scientific instruments, books and the like. We suggest that advertisements within these lines should be of a special character, as this is the only medium of the kind through which pharmacists and hospital pharmacies are provided with an educational monograph. Applications for space should be made to the Publisher without delay.

SUMMARY.

AN article on moths is printed in this issue which chemists will be able to use with advantage.

SOME curious observations in regard to the whitening of diamonds are noted in our French news.

IN Photographic Notes will be found an important set of formulae bearing on orthochromatic work.

IN our pages of reviews will be found a description of the electrical method for the removal of hairs.

A REPORT of the constituents of several essences of coffee is issued by the Glasgow Sanitary Inspector, and appears in our Scotch News.

A CHEMIST'S ASSISTANT has pleaded guilty at Sheffield to forging a character for himself, and another at Bath has been charged with attempted robbery of the till at the bar of an inn.

"EFFERVESCING SALTS" is the name which is now to be given to seidlitz powders which are not of B.P. standard. That appears from our report of cases tried in the West London Police Court.

IN some Australasian Colonies there is activity at present in the revision of Pharmacy Acts. Particulars are given in our Antipodean letter of that matter, as well as other bits of pharmaceutical news.

ARGUMENTS in the interesting case at Glasgow in which a grocer is charged, under the Sale of Food and Drugs Act, with having sold tinned peas coloured with copper are reported this week. The Sheriff is to give judgment on Saturday.

THE most sensational news in the drug market this week has been the publication of a telegram announcing the destruction by fire of half the shellac stock in the United States. One or two "quinine circulars" have also been much talked about in Mincing Lane circles.

THE Mitcham herb harvest is now in full swing and a description of a tour through the fields in the principal district is given in this number. The crops are both short and late, and all the distillers agree in prophesying higher prices, though these have been discounted to some extent already. The general summer weather now prevailing comes too late for the mint, which is mostly cut, but it may do some good to the lavender and the chamomiles.

THE DIRECTORS of SEQUAH (LIMITED) declare a dividend making the annual distribution on the ordinary shares 10 per cent. per annum. They complained at their annual meeting of the injury inflicted on their business by the refusal of the Board of Inland Revenue to grant licences for the sale of patent medicines from their chariots. The Board based their refusal on a statute which certainly was not passed with any view of interfering with such sales of medicines. A "set of premises" say the Board cannot be interpreted as applying to a van. We do not understand why Sequah did not contest the ruling.

SOME interesting letters are to hand this week. Pharmaceutical Conference discussions are continued by Mr. Conroy and Mr. Symons; Mr. Kingzett refers to experiments of his own made fourteen years ago in connection with the alleged poisonous character of copper in preserved peas; Messrs. A. & J. Warren give definite information as to the use of a purer methylated spirit than that which may be retailed; Mr. Kirkby helps us with regard to the so-called Brazil Ipecac. in the market last week; Mr. Burroughs defends his views on free travel, and anonymous correspondents furnish communications on pharmacy at Port Elizabeth, cinnamon in diarrhoea, and the prompt payment of salaries. In the report of the Irish Pharmaceutical Council will be found a statement by the vice-president in respect of the law affecting the compounding of medical prescriptions in Ireland as established by the recent prosecutions.

ADVERTISEMENTS of situations vacant and wanted, businesses for disposal, &c., will be received by us up till the first post on Friday morning.

English News.

THE PEARS ATHLETIC CLUB had a meeting at Richmond last Saturday. Foot and bicycle races were indulged in.

WEED-KILLER FOR SUICIDES.—Mary Everatt Steer, wife of a gardener, at Bigadon, Buckfastleigh, has committed suicide by taking a wine glass full of weed-killer. Her husband, immediately he found she had taken the poison, went for a doctor, but before he arrived she died.

DEATH OF A MANX CHEMIST.—An inquest was held last week at Ballakesh, near Ramsey, on the body of Daniel Quirk, aged 64 years, a chemist, who was found dead in his house on the Sunday morning previous. It is surmised that death took place a week before, and the body was much decomposed. A verdict of "Accidental death" was returned.

THE WRONG BOTTLE.—Richard Eustace (45), of Bradford, died on Saturday night at Bradford Infirmary through drinking in mistake from a bottle containing ammonia.—A child named Feates died in the Bristol Infirmary last week from the effects of muriatic acid, drunk from a bottle left on a table at its house.

CARBOLIC-ACID POISONING.—A middle-aged woman died in the Edinburgh Infirmary last Friday. She had taken some carbolic acid the day before.—On the same day an inquest was held at Hastings regarding the death of Mr. William Archer, a watchmaker, of that town. The evidence of Mr. H. R. Mansell, L.S.A., and Mr. B. H. Allen, M.D., Lond., showed that death was due to carbolic-acid poisoning.—We have also received a report of the death of a woman at Haywood Hospital, Burslem, from the same cause. When will the curve of these fatalities take a downward course?

A TUSSELE.—Howell Edwin Clement, described as a chemist, and stated to belong to London, and to be managing the business of his step-brother (Mr. Jones) temporarily, was summoned, at the Plymouth Petty Sessions, for assault upon Robert Joseph Page, shipchandler, 40 Southside Street. There was a cross-summons. The trouble arose in Page's shop, Clement having gone to Page to warn him not to slander his brother. Page spat in his face, and threatened to strike him. Clement dared him to do so. Page immediately struck him in the mouth and face, and twisted his wrist. The bench dismissed the summons against Clement, and fined Page 20s. and costs.

EXCURSIONS.—The employés of James Boulton & Co. (Limited), chemical manufacturers, Stratford, had an excursion last Saturday to Stanstead. A very enjoyable day was spent, and at dinner, in the Pied Bull, Mr. James Boulton presided, and the various toasts were well received.—Messrs. Idris & Co. had their annual excursion on August 29, Clacton-on-Sea being the spot selected for enjoyment. Leaving London at 8 A.M., [Clacton was reached at 11 A.M. Sports and dinner were provided at Rigg's Retreat. At dinner the chair was occupied by Mr. W. Adpar Jones, and the vice-chair by Mr. E. K. Bishop. In view of the high honour conferred on the firm by their recent appointment as purveyors of mineral waters to Her Majesty, the toast of her health was proposed and drunk with special enthusiasm. Excursions, sports, and tea occupied the rest of the day, which seemed to be enjoyed by all present.

THE HOLBORN GUARDIANS' CONTRACTS.—At the meeting of the Holborn Board of Guardians on Wednesday the clerk read a letter from Messrs. Wallace & Co., Botolph Claydon, Eastcheap, in which they offered to supply sulphuric acid at 3*l.* 5s. per ton net delivered at the Mitcham Workhouse, and oxide of iron 40s. per ton, carriage paid. With regard to the ammonia salts which the guardians have to dispose of, Messrs. Wallace said it was just now in very little demand, and 9*l.* 10s. per ton was all they could offer, they supplying the bags and carting it away. Mr. Sheib said the latter part of the letter would have to be considered, because heretofore the guardians had got 11*l.* and 12*l.* for the salt. This offer of 9*l.* 10s. was very small. Mr. Brown seconded the reference of the whole matter to the Mitcham Workhouse Committee, and it was adopted. The contract for the supply of drugs, &c., for the ensuing year was renewed with

Messrs. Baiss Bros. at the quotation of 28½ per cent. off the Holborn Union list prices. Messrs. Mackey offered at 29 per cent. off, Messrs. Hill & Sons, quoted 18 per cent. off, Messrs. Hodgkinson, Preston & King, 25 per cent. off, and Messrs. Troake, Walker & Troake, 21½ per cent. off.

CRICKET.—A match was played at Newsham Park Liverpool, on Saturday, September 5, between an eleven representing Messrs. Evans, Sons & Co.'s staff and eleven from Messrs. R. Sumner & Co. The Evans men only totalled 28, their opponents responding with 63. For the victorious side D. Hetherington was top scorer with 25 runs, and was also credited with 7 of the opponents' wickets. J. E. Jackson, with 9 runs and 5 wickets, had the best record among the losers.—Owing to the vacation the Mason College C.C. were not able to get a team together to play the Midland Chemists on Wednesday. A return "Captain v. Secretary" match was played instead, when the former put together 90 and the latter 27. Mr. C. S. Baynton made 51 not out for the winning team.—On September 5, at the West London Cricket Ground, a match was played between the Pharsalia C.C. (J. Sanger & Sons) and the Newbery C.C. (F. Newbery & Sons), resulting in a draw slightly in favour of the latter team, the scores being—Pharsalia 70, and Newbery 52 for five wickets.

VETERINARY MEDICINE CLAIM.—In the City of London Court, on Friday, before Mr. Commissioner Kerr, the case of *Jacobs v. Rutland* was disposed of. The plaintiffs, Messrs. E. Jacobs & Son, veterinary medicine manufacturers, of 182 Houndsditch, E.C., sought to recover the sum of 2*l.* 14s. for veterinary medicines sold and delivered to the defendant, Mr. C. Rutland, of 41 Braxton Street, S.W. The first hearing was reported in this journal. The defendant denied on the first occasion having given the order, which it was alleged he gave on February 3 last. He did not dispute that the goods were sent, and that an invoice accompanied them. The fact was, he said, that Mr. Miles, the plaintiffs' traveller, called upon him in the ordinary course of business, and asked if he had been having any medicines from the plaintiffs. He told them he had, and then Miles said:—"When you want any more give me the order, as I shall get a commission out of it." Miles told him that if he would have some of their medicines, and try and sell them, he would be allowed 25 per cent. commission, and what he did not sell he could return. On these terms he accepted the goods which were sent in, but he explained the circumstances to another of the plaintiffs' representatives who called, named Kirby. Mr. Commissioner Kerr said Miles must be produced, and the case was adjourned for his attendance. Now it seemed the parties had settled their differences out of court, so the case was struck out.

THE HOLLOWAY TRAGEDY.—Ernest Nightingale, whose tragic death, with that of his wife and two children, apparently from strychnine-poisoning, has been a familiar subject to newspaper-readers during the past week, was a traveller in the employment of Lorimer & Co., wholesale druggists. Mr. Lorimer says the deceased was a sound, sensible man of business—one of the last persons he should have thought would have injured anyone else or taken his own life. He was the firm's senior town representative, and a confidential and valued servant of ten years' standing. Under his arrangement with the firm he had steadily increased his income during the past five years, and for the year ending June last he had made 37*l.* 10s. 9*d.* He was only employed with Lorimer & Co. half the day, and was at liberty to hold other commissions. He had access to the whole of Messrs. Lorimer's premises, and carried samples of drugs and other things with him when travelling, but it was not necessary for him to have samples of hydrocyanic acid or strychnine. He was a very quiet, reserved man. He was conscientious and trustworthy, and his accounts are perfectly correct. He was a teetotaler. He had complained of his head, and been at times rather depressed. Only a day or two before the discovery at his house he spoke of pains in his head, and asked Mr. Lorimer to recommend him a draught. On the Friday before the deaths he wrote to the firm to say he had postponed his journey until Tuesday, being too unwell.

CAN AN UNREGISTERED CHEMIST RECOVER DEBTS?—At the Carnarvon County Court, last week, J. E. Jones, drug-

store dealer, sued a retired gentleman, named Arthur H. Bellairs, of Marple Hall, Cheshire, for 6*l.* 7*s.* 8*d.* due, it was alleged, for goods supplied, including pills, draughts, and tobacco. The plaintiff, in cross-examination, said that he was not a qualified chemist. Mr. Roberts, the solicitor for the defence, having remarked that the bill included an item for a gross of pills, Judge Sir H. Lloyd exclaimed: A gross of pills! Mr. Roberts: Yes. His Honour: Is he alive? Mr. Roberts: Yes; he is here, your honour. (Laughter.) Plaintiff said that he supposed defendant was in the habit of taking about twelve pills a day. (Laughter.) His Honour, replying to Mr. Griffiths Jones, plaintiff's solicitor, that no poisonous stuff was mixed with the medicine, said the Registration Act made no distinction, and no one could recover unless he was registered. Plaintiff further stated that the defendant had been lodging with him for many years at 25*s.* a week for board and lodgings, and he had been very good to witness. Mr. J. T. Roberts contended that the greater part of the claim was only an attempt at black-mailing. The defendant was called, and said he had taken a personal interest in the plaintiff for nearly thirteen years, and had helped him in his M.A. examinations through friends. Having concluded his evidence, witness, who is subject to fits, fainted. In the result, judgment was given for plaintiff for 2*l.* 12*s.* 1*d.*, and on a counter-claim for goods not delivered.

CHARGE OF ROBBERY.—At the County Police Court, Bath, on Tuesday, Distin Webber (25), chemist's assistant, was charged with attempting to rob the till of the George Inn, Bathampton, on Monday evening. Police-constable Brunt, stationed at Bathford, deposed to taking the prisoner into custody on the statement of the landlord. In reply to the charge he said nothing. Four halfpence were found upon him. Ann Dolman, daughter-in-law to the landlord, stated that prisoner had been about the house and garden throughout the afternoon and evening. Shortly after nine o'clock, in consequence of the till being open, she mentioned the circumstance to her mother, in the presence of Webber, and the drawer, which was situated in a little private bar in the rear of the public one, was shut. Soon after she saw prisoner, who was standing in the passage, put his arm through the window and open the drawer some three inches. Her father came in, and she closed it. When all was quiet she saw prisoner introduce his hand into the till, and told the landlord, who went into the passage and held him. Henry Dolman said that, hearing something was wrong, he placed himself close to the door, while his wife watched the prisoner in a mirror in the front bar, and on her giving him a sign, he quickly opened the door and found prisoner with his elbow leaning on the counter. He accused him of trying to rob him, when the prisoner replied that he had made a mistake, afterwards, however, asking him to look it over, as "it would not do him any good, and it might do accused a great deal of harm." Money to the amount of 18*s.* 6*d.* was in the till, but nothing was missed. Eliza Ann Dolman corroborated. The case was remanded.

CHEMISTS' WINE LICENCES.—Mr. Thomas Grant, chemist and druggist, of Clevedon, applied to the magistrates at the Long Ashton Petty Sessions, on Friday last, for a licence to sell medicated wines, to be consumed off the premises. Mr. Herbert Coates, solicitor, who appeared in support of the application, said Mr. Grant was the largest chemist in Clevedon, and he wanted a licence to sell, not the ordinary, but medicated wines, under 23 Vict., cap. 27, sec. 3. Medical men had such a high opinion of these medicated wines that there had been a large demand for them, and as they were not supplied by the grocers and wine-merchants at Clevedon, application was naturally made to the chemist. Mr. Grant proved the necessary notices, and the publication of the same in the *Clevedon Mercury*. The Chairman: Is it not necessary to show the rating of the premises and the character and respectability of the applicant, as with other licences? I am not acquainted with the Act in reference to this particular class of wines. Do you know, Mr. Wansbrough? Mr. Wansbrough: I believe it is, sir. The Chairman: Have you the rate-book, or a receipt for the rent? Mr. Coates said he was afraid he had come unprepared with either. Mr. Grant said he held the premises at a rental of 80*l.* a year. Mr. Coates added that one reason for making the application was their wish to guard themselves against

the Excise authorities. The Chairman: We don't want to know what your motives are; we endeavour to carry out the Act of Parliament. Mr. Coates then handed in testimonials from several gentlemen at Clevedon, including several doctors, and the licence was granted.—At the annual Brewster Sessions at Hove, last week, Mr. H. C. Thorne, chemist, of 63 Western Road, Hove, applied for and obtained a licence to sell wines.

COUNCILLOR BARCLAY ON BIRMINGHAM WATER.—A splendid audience assembled in the large lecture theatre of the Birmingham and Midland Institute, on Monday night, to hear Councillor Barclay lecture on the future water-supply of the town. Sir Thomas Martineau presided. The lecture was largely statistical, but Mr. Barclay made the figures interesting, and he was intelligently followed by his audience as he proceeded to tell them what the local rulers have been doing to keep up the supply. By means of a lantern he placed before the audience pictures representing the beautiful Valley of the Wye at Glyn-gwy, near where the railway crosses the river, and also the junction of the Rivers Wye and Elan at Glyn Bridge. The water committee have decided in favour of a supply from that source. The gathering-ground contains 45,000 acres, or 70 square miles, with an elevation varying from 800 feet to 2,100 feet above sea-level. It is situated in Cardiganshire and Radnorshire, 80 miles west of Birmingham. It consists of wild moorland, and the whole population on it had been ascertained not to exceed 180 in number. Mr. Barclay had had several analyses made of the water under various conditions, and found it first-class, and amongst the best in the kingdom for purity and general suitability for a town's supply. It was far superior to the present supply. The present Birmingham supply was satisfactory chemically, and might consequently be pronounced good water, but there were complaints. Not only was the quality of the Elan water satisfactory, but the committee were of opinion that it would be satisfactory as a source of supply. They considered that if they provided for a period of fifty years in advance, the maximum supply Birmingham would then require in dry weather would be 60,000,000 gallons a day, and they were fully satisfied that the supply from the Welsh district would be adequate to meet their requirements. The lecturer also described the engineering works, and at the close Sir James Sawyer referred in highly complimentary terms to the discourse.

IRISH NEWS.

COLIC DROPS.—Only five drops were given to a child at Newtownards to keep it from crying. It cries no more.

MESSRS. LESLIE & COMPANY, Dublin, have been appointed contractors to the Drogheda Union for the supply of medicines.

MESSRS. M. CLOHERTY & SONS, druggists, &c., Shop Street, Galway, have opened a new establishment at Williams Gate Street in the same town.

THOUGHT IT WAS PORTER.—A carman named Lynn lost his life at Ardoyne, near Belfast, on Saturday, by drinking from a bottle a mixture of vitriol and water, which he thought was porter.

THEY DON'T MIND THE NAPHTHA.—At the annual meeting just held of the Belfast Vintners Association it was stated that in some parts of the city methylated spirit is still freely sold to the public, although the stuff is mingled with naphtha and even petroleum to give it a repulsive odour.

DRUG CONTRACTS are invited for the next twelve months by Balrothery Union and six dispensaries, September 21; Troinstown Union, September 16; Kells workhouse hospital and Union dispensaries, September 19; Kinsale Union and five dispensaries, September 17; Lurgan Union and seven dispensaries, September 17; Strokestown Union, September 25; Waterford Union and various outlying districts, September 16.

NEW REGISTERED DRUGGISTS.—At the quarterly Registered Druggist Examination, held at Dublin on September 3, the following passed:—R. Canavan, Headford; E. H. Collopy, Limerick; J. Curry, Borris; P. D. Cussey, Limerick; J.

Fleming, Kingstown; J. Leavy, Ballinagh; T. Morris, Crossmaglen; A. and J. J. Murphy, Cork; J. Shirley, Dublin; R. L. Taylor, Tinahely; J. J. White, Dublin. Five candidates were rejected. At a Registered Druggist Licence Examination held at Queen's College, Belfast, on September 8, the following passed:—William Baxter, Belfast; H. B. Hunter, Belfast; F. Lindsay, Belfast; A. MacNaughton, Belfast; F. W. Minnis, Saintfield; G. Montgomery, Belfast; W. R. Moss, Belfast; W. D. Quirey, Belfast; J. Sandford, Portadown; W. J. Storey, Belfast. Two were rejected.

SNUFF AS MEDICINE.—At the meeting of the Guardians of the South Dublin Union last week a discussion arose as to the expediency of continuing the supply of snuff to paupers who had heretofore enjoyed the luxury on medical grounds. The committee who had before them the question had resolved that the names of all paupers in receipt of snuff should be supplied by the apothecary. On making the statement that the snuff was ordered by the doctors, Surgeon-General Gunn objected on the ground that snuff was not a medicine, after which it was resolved that the chemist should issue no snuff weekly to any department unless the names of the individuals for whom it refers are set out in the prescription books showing the quantity supplied to each person. The motion was carried.

SCOTCH NEWS.

DUNDEE UNIVERSITY COLLEGE has now all the classes that are necessary to carry on medical students to the second professional examination.

MR. WILLIAM SMITH has disposed of his branch business at Canonmills to Mr. John Findlay, who was last year secretary to the Assistants' Association.

THE SALE OF PILLS FROM STAMPED BOXES.—We are informed that one of the Scotch defendants against Messrs. Beecham has appealed from the decision given against him in the Court of Session, grounding his appeal on the consideration (which he alleges) that, it being legal only to sell Beecham's pills in the original boxes, Beecham's agent was tempting his defendant's assistant to commit an illegal act by requesting him to supply pennyworths, and that he could not expect to get the real thing in this way.

LAKOLA (LIMITED).—The directors of this new company, which has been formed for the purpose of developing the business in kola and its combinations carried on by Mr. M. F. Thompson, chemist and druggist, 17 Gordon Street, Glasgow, and 97 Princes Street, Edinburgh, entertained a small company of gentlemen of the press to a sumptuous luncheon in the Central Station Hotel, Glasgow, on September 3. Mr. Peter Barr, the chairman of the company, presided, and speeches were made in honour of kola in general, and on Lakola in particular.

ESSENCE OF COFFEE.—In the annual report of the Glasgow Sanitary Inspector (Mr. Peter Fyfe), issued last week, the following item occurs:—"Essence of coffee is a manufactured article of diet which I deemed it advisable to inquire into this year. It is much advertised by the vendors, and is, I believe, largely purchased by the public. I took three samples of this essence, as manufactured by the three principal makers, and sent them to the public analyst. As it appears to me to possess public interest, I give here the results of his analysis in each case:—

	1	2	3
	Per cent.	Per cent.	Per cent.
Caffeine	00.22	03.18	03.15
Cane sugar	44.00	33.85	56.95
Fruit sugar and other organic matter	19.64	29.03	11.22
Mineral matter in ash	1.32	1.42	1.32
Water	34.62	35.52	30.36
	100.00	100.00	100.00

His notes attached to the certificates show that the caffeine in the samples is very low—in No. 3 absurdly low—and the

analysis of the best one shows that 98½ per cent. of this concoction is water and sugar.

GLASGOW ROYAL INFIRMARY NURSES.—This week the managers of the Glasgow Royal Infirmary are conducting an inquiry into certain alleged grievances of the infirmary nurses. The investigation seems to be consequent on some letters which have appeared in a Glasgow newspaper complaining of long hours of duty, inferior quality and insufficient quantity of the food provided for the nurses, and of the inadequacy of the nursing staff of the "Royal." It is alleged that the nurses are kept on duty for never less than 14½ hours a day, and frequently for 16 hours. A case is cited in which a probationer-nurse was on duty for 16 hours daily on 9 consecutive days; and another of a nurse having been on duty for 31½ hours, excepting an interval of 3½ hours for rest.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

SEROUS PLEURISY TREATED BY SALICYLATE OF SODA.—M. Talamon, of Paris, has recently cited several cases in favour of this treatment, which he explains, not by the very manifest diuretic power of the salicylate of soda, but by its penetration into the serous cavities and by its direct action on the inflamed pleura. This physician has used the salicylate of soda with marked success, in doses of from five to six grammes a day, in five cases of serous pleurisy.

FATAL ERROR.—A moment of distraction on the part of a young woman named Mlle Mary caused the death of a child at Rambouillet, last Saturday. In the absence of her parents the girl had charge of an infant brother. Having been told to give the child a dose of syrup of chicory, ordered by the doctor, she gave by mistake several drops of Baugé bitters. Aid was immediately obtained, but the child died some minutes later in great agony. The error was caused, as is so often the case, by the two bottles being placed together. The Baugé bitters were used by the mother for cramps in the stomach, from which she suffered.

FRENCH EXAMINATION LAW.—An examination in pharmacy has just been terminated at the Rouen School of Pharmacy. Five students succeeded in satisfying the examining Board. Six other candidates, already pharmacists, passed their examinations a second time, in order to obtain permission to practise in another department, as required by the provisions of an antiquated law. One of these candidates passed his examination five years ago at the same school and had to present himself again because he is removing to a town a few miles away. Another, a middle-aged man, who has been in business a number of years, is desirous of retiring, but, wishing to still retain his title of pharmacien, had to pass the examiners a second time on account of a similar change of residence. French chemists and druggists of the second class bitterly resent this vagary of the law.

A CLEVER CHARLATAN.—A man known as Golvin, but supposed to have several aliases, styling himself a specialist doctor and editor of "The Medical Echo of Paris," has exploited recently the inhabitants of a number of towns and villages in the departments of the Seine and Oise and Seine and Marne. He circulated extensively attractive-looking advertisements got up somewhat as follows: "Let all who suffer come to me. I possess an elixir which cures instantaneously all so-called incurable maladies which Doctors of Sciences are incapable of treating with success! Do you suffer from pains in the stomach, gout or rheumatism; are you consumptive, deaf or blind, bandy-legged, or hunch-backed; do you cough without spitting or spit without coughing; do you perform the natural functions badly; are you too stout or too thin; is your skin too dry or too short (sic)? If you are afflicted with any of these maladies, come to-morrow to the Dancing Hall of the district and I will give you gratuitous consultations! I also treat by correspondence." A large number of credulous folk were caught by this clumsy trap. If the "consultation" cost the poor people nothing, the well-to-do made up for it by paying 4fr. each. In return for this Golvin took a sample of their urine, which, however, he threw away immediately. The patients

heard no more of the *quasi*-practitioner when once he had left the town. Numerous complaints have been made to the police at Pontolse against this swindler, and M. Veron, Police Commissary, has been charged with the task of tracing him.

THE FALSIFICATION OF DIAMONDS.—A good deal of attention has been attracted here by an attempt to give yellow Cape diamonds a brilliant white aspect by the use of a little aniline. A similar attempt some time since caused a commotion in the diamond trade. It has been recommended, and stones to the value of a million sterling are said to have been chemically treated. Some of the large Belgian merchants are supposed to be the culprits, and a score of Paris dealers have purchased diamonds at from 25 to 30 per cent. above their market value. A chemist, M. Gilon, has studied the question from a purely scientific point of view, in order to find out if it is possible to absolutely alter the aspect of diamonds, so as to considerably increase their apparent value. M. Gilon was surprised at the successful results of his experiments. The process followed by the chemist was based on the principle of optics that violet is the complementary colour of yellow. M. Gilon prepared an alcoholic solution of violet aniline. He added a few grammes of benzoic acid as an adhesive. A yellow diamond bathed in this became white, but it had lost its brilliancy. He then prepared a solution having a larger proportion of aniline. In this preparation another yellow stone was placed for several seconds: it came out retaining its full brilliancy. A fortnight later the stone had lost nothing of its factitious whiteness, and the most experienced eye could suspect nothing. M. Gilon has no reason to suppose that a year would produce any change. As a result of these experiments it is evident that the fraud is perfectly possible, especially as diamonds are bought without undergoing any test. A careful examination of the tinted stone through a magnifying glass shows no trace of the slightest covering or shade on the facets. Neither does the friction of a chamois leather or cloth alter the tint. There is apparently only one way of explaining the really marvellous action of the dye. This is to admit that it impregnates solely the cutting edge, which forms the circumference of a stone. This is the only part unpolished, and it is barely perceptible. The only way of testing diamonds is to use *aqua fortis*, which the dye cannot resist. M. Gilon has managed to fix the tint in such a way that an alcohol bath is not a sufficient test for proving white diamonds.

AUSTRALASIAN PHARMACEUTICAL NEWS.

LEGISLATION.

THIS is a busy season for pharmaceutical legislators. In three of the colonies attempts are being made, or have recently been made, to induce the various Legislatures to amend existing laws or to extend pharmaceutical privileges.

IN NEW SOUTH WALES

the Pharmacy Board has reprinted the Victorian Act, with trifling alterations, and has resolved to present it to Parliament for legislation as a Bill to establish a Pharmacy Board, and to regulate pharmacy in the Colony.

The Chemist and Druggist of Australasia points out that, as the Bill now stands, the effect of it will be two Pharmacy Boards in New South Wales, the present one charged with the administration of the Poisons Bill, and another nominated by the Governor-in-Council to administer the Pharmacy Act. It is, moreover, very doubtful if the men now registered as chemists and druggists will be able to be registered as pharmaceutical chemists under the new Act, and a registered chemist of Great Britain will have to furnish a declaration from a justice of the peace, or legally qualified medical practitioner living in New South Wales, that, to the personal knowledge of the signer, the applicant has been in business as a chemist and druggist during periods set out in applicant's declaration, which, by the way, he is not required to make. No provision is made for repealing the sections of the Poisons Act which relate to the Pharmacy Board, nor for carrying on the administration of that Act till the new board is appointed, nor for transferring to the

latter the control of the sale of poisons. Though it was doubtless intended that names now on the Poison Register should be transferred to the Pharmacy Register without charge, this is not provided for. All will have to apply in the usual way, present certificates or pass examinations, and pay fees of 2*l.* 2*s.* to 4*l.* 4*s.* It is true that there is a section which might have been intended to remedy this, but it is merely a definition of chemists and druggists, borrowed from the Victorian Act, and giving no right whatever to renewed registration, except by the regular course of examination.

Altogether the Bill, as it stands, is a queer jumble when read along with the existing Act, and something will have to be done if a shocking muddle is to be prevented.

IN NEW ZEALAND

an attempt is also being made to get a Pharmacy Bill through under the auspices of the Government. So far the Government decline to be caught, but pressure is being brought to get them to reconsider their decision. If the Government absolutely refuse, then the board will have it introduced as a private Bill. The Bill was in manuscript in the hands of the Government when our advices left the colony.

IN QUEENSLAND

an attempt was made, early in July, by Mr. Barlow, M.L.A. for Ipswich, to amend the Pharmacy Act, by providing that a chemist legally registered in any other colony should have a right to registration in Queensland. The proposal was not approved of by the Pharmaceutical Society—in fact, it was a personal affair altogether. Some months ago a chemist, who had started in business at Ipswich, was prosecuted and fined for doing so while he was not registered. He was registered in New South Wales, and, had he applied at the right time, he could have been registered in Queensland. But before he did so the regulation providing for reciprocity between the two colonies had been cancelled. He seems to have too much pluck to let the matter rest, and has stirred up enough sympathy in his fellow-townsmen to lead them to request the representative of the district to bring a Bill forward for the relief of men situated as himself. That was done; but, owing mainly to the action of the president of the Pharmaceutical Society of Queensland (Mr. G. Watkins), the Bill was defeated on the second reading. So far legislation in the meantime. Nothing very admirable about any of it.

ELEGANT PHARMACY

pays, generally. It is safe to scrape off old labels before putting on new ones. That is elegant pharmacy. It is a trick which Mr. Mitchell, an herbalist, of Woodville, New Zealand, was not old enough to learn. He was a clerk until a year ago, then started as an herbalist. One of his customers got a bottle of what was supposed to be rheumatic embrocation from him for his wife, but Mitchell had put up washing-fluid in an old embrocation bottle, with a new label for washing-fluid on the old one. The new label came off, and Mitchell thought he was giving his customer a bottle of embrocation. It was to be rubbed in with a rough towel. This was done at night, but the patient complained that it burned her. Next morning the back was red and inflamed, but the patient's husband proceeded to apply the lotion again, and then thought his wife was going mad. By night the back was quite raw. For this the plaintiff wanted 100*l.* damages, and the resident magistrate awarded him 15*l.* 15*s.*, and the defendant had a good deal more to pay for costs.

PHARMACY IN TASMANIA.

From the list of persons who are licensed to dispense medicines in Tasmania it appears that the number is 113, and nearly half, or 51, are not resident, a proportion four or five times as great as in any other colony. Of the 62 chemists resident in Tasmania only eight were registered before 1878, four more were registered before 1881, when the New Zealand Act commenced, and nine more before the date of the Queensland Act in 1884. No less than 41 have been registered since 1883; two-thirds of the chemists now in Tasmania have been registered less than nine years. The Nestor of the register is Mr. John Hair McCall, of Torquay, registered on March 6, 1858. Next comes Mr. A. N. Spong, of Hobart, registered on September 15 of the same year, and Mr. H. W. Laws, of Deloraine, on May 31, 1859. The next

registration was on March 22, 1871—viz., that of Mr. F. K. Fairthorne, of Launceston. The 62 chemists resident in the colony have a population of 146,667 to live upon, or more than 2,300 apiece, a great decrease since 1886, when 39 chemists each had 3,518 of population, but still a very satisfactory share when compared with other colonies, especially when the strictness of the law is considered.

FLORIDA-WATER TRADE-MARK.

At the Supreme Court, Sydney, N.S.W., Messrs. Lanman & Kemp, perfumers, New York, have succeeded in obtaining an injunction restraining Henry J. Craig and William Aitken, who carry on business at 680 George Street, Sydney, from selling or exposing Florida water put up like theirs. The bottles of perfume sold by defendants had a label similar in appearance to that of plaintiffs, but having at the foot the words, "Lambard & Kent, perfumers, New York." It was stated that there is no firm of that name in New York carrying on the business of perfumers.

A SHOP HOURS BILL

is now before the New Zealand Parliament. The principal provisions are the compulsory closing of shops at 6 P.M. four nights in the week; 9 P.M. one night in the week; and 2 P.M. one afternoon every week. Chemists are excluded from the operations of the Act; but the Otago Association have approached the Government with the view of having a permission-clause inserted, "that where a majority of chemists in any city or borough agree to close at a fixed hour, that hour shall be binding on the minority."

VICTORIA ASSISTANTS AND APPRENTICES.

so far as those resident in Melbourne are concerned, have formed an association for their mutual improvement, with Mr. Sydney Plowman, F.R.C.S., at their head as president.

EUCALYPTUS OIL.

One of the *Gladstone Observer* staff has made a visit to Timbury's eucalyptus oil distillery at Gladstone. It is not until he has written a whole column that the newspaper man gets to the point. It is this:—"Mr. Timbury is delighted to see us, and forthwith leads us to the factory in the paddock behind the shop. Already the still has been at work, and the stillman is drawing out a mass of yellow, shrivelled leaves, which have been made to yield up their essential oil. We watch the process. Some hundredweight of leaves are placed in the still and subjected to steam-pressure and saturation. At the proper time the way to the condenser is opened, and the product is soon seen in a blackish oil floating on the top of the condensed steam. This is drawn off into bottles by means of specially-constructed tins, and, after settling for a while, is then ready for filtration, and that necessary treatment which renders it the colourless liquid that is one of its characteristics. Mr. Timbury tells us he proposes to enlarge his plant considerably, to urge the Government to give the industry some encouragement, and to move the locus of the factory to a convenient neighbourhood for water, wood, and the necessary ground for planting trees of the *Citriodora* order."

Gazette.

PARTNERSHIPS DISSOLVED.

- Best, R., & Baker, W., Middlesborough, mineral-water manufacturers and botanical herb-beer brewers.
Cohen, I., Cohen, M., Cohen, Edgar, & Cohen, Emanuel, under the style of J. and M. Cohen, Houndsditch, City, sponge merchants and importers; as far as regards Emanuel Cohen.
Eartby & Myer, Homerton and Leyton, metallurgical, practical, and consulting chemists.
Payne & Keer, Wallingford, grocers and chemists.
Robinson & Frankland, Mirdfield, oil and dry soap manufacturers.
Robinson, T., & Robinson, W., under the style of Thomas Robinson & Sons, Clayton, and under the style of William Robinson & Co., Dryolesden, manufacturing chemists.

THE BANKRUPTCY ACTS, 1883 AND 1890.

ADJUDICATION.

- Wilson, John Edward, trading as Edward Wilson, Elgin Crescent, Notting Hill, chemist and druggist.

Personalities.

SIR JOHN AKERMAN, now the Speaker of the Legislative Council in Natal, and at present visiting England with Lady Akerman, was formerly a chemist and druggist in Pietermaritzburg.

MR. SMITH, of Madras, left London for India by last week's mail. He expressed much appreciation of the kindness which the London wholesale druggists had shown him during the three or four months he has spent here.

MR. NORWOOD COAKER, chemist and drug merchant, of Jagersfontein, Diamond Fields, Orange Free State, is staying for a week or two at 90 Harwood Road, Walham Green. Mr. Coaker has a diamond mine for sale. Mr. H. C. Sanders, of Fauresmith, Orange Free State, is also in London.

In the interesting letters which Mr. S. M. Burroughs sent to us during his recent travels in the East, he mentioned what Mr. Murad Baroodi, pharmacist, Beyrout, is doing in respect to improving the products of the district. We are indebted to Mr. Burroughs for a parcel of products from Lebanon, including bottles of wine, olive oil, orange-flower water, and spirits of wine. We hope to report further of these articles, so far as they interest pharmacists, when we have had time to examine them properly, as they appear to present features of special interest.

DEED OF ARRANGEMENT.

The following deeds of arrangement with creditors have been filed at the Bills of Sale Office, under the provisions of the Deeds of Arrangement Act, 1857. Some of these deeds are for the purpose of carrying out compositions with creditors (and such are specified below), but the great majority of them are "assignments" in the ordinary form, to a trustee or trustees, for the benefit of creditors. The Act referred to expressly provides that registration shall not give validity to any deed which is an act of bankruptcy, and there is no provision, in the Act, making any of these arrangements binding upon dissenting creditors.

Mansergh, James K., & Sons, 15 Wheathill Street, Salford, and Clifton, near Manchester, manufacturing chemists (partners, Arthur James Mansergh, 38 Kempster Street, Lower Broughton, and Thomas Edward Mansergh, 18 Duke Street, Lower Broughton, trading as) Trustee: Arthur E. Piggott, 15 High Street, Manchester, accountant, with a committee of inspection. Dated, August 31; filed, September 7; unsecured liabilities, 887l. 10s. 9d.; estimated net assets 1,119l. 16s. 9d.; creditors fully secured, 731l. 6s. The following are scheduled as creditors:—

	£	s.	d.
Blacking Company, Glasgow.. ..	12	10	4
Brown, W., Manchester	35	3	9
Buckley's Trustees, Manchester	12	14	6
Buckley's Trustees, Manchester	27	10	0
Caldar Chemical Company, Norwinton	23	8	0
Cliff & Sons, Leeds	14	15	0
Coupe, E. & M. (Limited), Chorley	23	15	2
Cumming, W. & Co., Glasgow	57	15	9
Dunn & Son, Manchester	30	8	10
Evans, James, & Co., Manchester	23	12	7
Gas Department, Manchester	20	0	0
Gorton & Co., Salford	20	12	6
Jones, J., Salford	51	14	8
Kershaw & Sons, Manchester	16	18	7
Kershaw, S., Salford	10	18	10
Knowles, Andrew, & Sons, Manchester	83	15	9
Knowles, Andrew, & Sons (Limited), Manchester	22	10	0
Leigh, W. H., & Co., Salford	41	10	7
Lotts, Henry, Salford	31	15	11
Rumney, Robert, Manchester	47	11	5
Sanier, Manchester	13	11	3
Sykes, James, Ashton-under-Lyne	17	7	10
Tenant's & Co., Manchester	19	12	0
Union Bank of Manchester, Salford	28	16	7
Watch Committee, Salford	12	2	0
Whitehead, George, Manchester	82	11	10

Pharmaceutical Society of Ireland.

ON Wednesday, September 2, the monthly meeting of the Council of this Society was held in the board-room of their newly-acquired house, 67 Lower Mount Street, Dublin. The Vice President (Mr. W. F. Wells, jun.) occupied the chair. Other members of the Council present were: Messrs. Charles Evans, W. J. McNeight, W. J. Rankin, Samuel Gibson, P. J. Lyons, P. Merrin, Johnston Montgomery, Alexander E. Doran, G. H. Grindley, G. D. Beggs, Charles Johnston, W. N. Moore, R. Simpson, Dr. Burnes, and Professor Tichborne.

ENFORCING THE PHARMACY ACT.

A letter was read from Messrs. Casey & Clay, solicitors of the Council, reporting the result of prosecutions recently instituted in Dublin.

The VICE-PRESIDENT said: Before we take this and some other letters connected with the matter into consideration, I should like to make a short statement. Most of you are aware that some years ago the Council of the Society took the opinion of counsel as to whether it was legal for partners, one of whom was qualified and the other not, to carry on together the business of a chemist. They were informed that it was not legal, the Act distinctly stating that every partner must be qualified. Some licentiates of the Society, who were then in partnership with others who were not qualified, then adopted the system of opening a shop within a shop. The Law Committee have been always of opinion that this was not legal. But this system has since grown so much that your Law Committee thought the legality should be tested by taking the opinion of a magistrate, for the opinions of counsel are often worth very little. Accordingly, several cases having been reported to us, we took out summonses against three defendants. We had three distinct charges against each—viz., firstly, that he kept open shop for selling prescriptions without being lawfully authorised to do so; secondly, that he compounded medical prescriptions; and, thirdly, that he sold them. The first case was that against Mr. Anderson, which was proceeded with in the Southern Police Court, before Mr. Byrne. Mr. Clay, I should state, made a very able case for us; in fact, I don't think the Attorney-General could have made a clearer one. The defence which was made was that Mr. Holmes, a qualified man, owned the compounding department; and Mr. Holmes produced a stamped agreement between himself and Mr. Anderson, under which he (Holmes) rented the back portion of the shop with a right to the use of the front, and a right to put up a signboard outside the door. Mr. Holmes was cross-examined, and maintained that this agreement was genuine, but, unfortunately for them, it was dated April 15, and Mr. Ferrall, our Registrar, discovered that the stamp on the document was dated the 1st of last month. The attention of the magistrate was drawn to this, and, after having gone very fully into the case, he grasped the situation, and gave a decision in favour of the Council, holding that it was unlawful for an unqualified man to carry on business even with the aid of a qualified man in the shop, the unqualified owner being, according to law, the person "keeping open shop." We then prosecuted a Mr. Farlow, in the Northern Divisional Court, and his case was stronger than the other, because he had an agreement dated two years ago with the same Mr. Holmes. The magistrate, after hearing the case, suggested to Mr. Clay that we should proceed only upon the charge of keeping open shop for the sale of prescriptions, and withdraw the other two. He said if we did that it would shorten the case, because there was no doubt that the defendant did keep open shop. We acquiesced in the suggestion, although we had ample proof that he did compound prescriptions, and did actually himself sell them. Another of our cases was against Mr. Little, of Donnybrook, an unqualified owner, who was not even a registered druggist, who kept open shop for the sale of prescriptions, and in that case the defendant pleaded guilty. Mr. Clay was anxious to have the question tried as to whether an unqualified assistant in the employment of an

unqualified man could not also be made amenable, and, accordingly, a Mr. Price, assistant to Mr. Little, of Donnybrook, was summoned for illegally compounding prescriptions, but he pleaded guilty. I make this statement because I think it necessary that every registered druggist and everybody else throughout the country should understand the state of the law. I see Mr. McNeight here, and wish to ask him a question. A statement has been made that Mr. McNeight had a hand in sending out a circular to registered druggists throughout the country stating that it was perfectly legal for a registered druggist to employ a qualified pharmacist, and so carry on the compounding business. I may add that we had a complaint of this having been done, and the defence was that the party had been informed that he was perfectly within his rights, and that he intended to snap his fingers at us. If no such circular has been sent out, I would ask Mr. McNeight to do everything he can to inform gentlemen throughout the country as to what the real state of the law is, for now that the Council have started this matter they will have to follow it up.

Mr. MCNEIGHT: Have you seen the circular?

The VICE-PRESIDENT: No.

Mr. MCNEIGHT: Well, I should like to see it, for I have not seen it. I never heard of it before.

The VICE-PRESIDENT: It has been published that you were connected with it.

Mr. MCNEIGHT: Well, let the person that published that produce the circular. It is the first I have heard of it.

The VICE-PRESIDENT: I heard that you stated to a friend of mine that such was the law.

Mr. MCNEIGHT: No; but I will tell you what occurred. I was under the impression that a registered druggist could manage a business for a person who was not a registered druggist, and that the clause you speak of only referred to pharmaceutical men. But the next day I looked at the clause, and found that what your father stated about it was correct, and then I went back and told him so.

The VICE-PRESIDENT: He said you told him that it was lawful for a druggist to employ a pharmaceutical chemist to carry on a pharmaceutical business.

Mr. MCNEIGHT: No, it was nothing about compounding at all. The whole conversation with your father was with reference to registered druggists.

The VICE-PRESIDENT: A statement was made to our Registrar that a party had in his possession a circular from you.

Mr. MCNEIGHT: Well, I would like to see the circular. I think the Registrar should give the name of the party who made the statement to him.

The VICE-PRESIDENT: I don't think that would be fair.

Mr. MCNEIGHT: I think it would. I think the imputation is a very severe one.

The VICE-PRESIDENT said he only wanted to have the law clearly understood. If they were to have union between the two grades, it could only be accomplished by the registered druggists abstaining from what was certainly the lawful business of the pharmaceutical chemists.

Mr. MCNEIGHT: That is quite right. I have nothing to say against it.

The VICE-PRESIDENT: We have a letter from a gentleman in the country saying that he intended to continue doing this thing, but he only read the marginal note of section 17, and did not look at the words with which the section begins—"any person or persons lawfully keeping open shop."

Mr. MCNEIGHT said the statement which had been made about his having been connected with the issue of a circular was a very serious one, and he requested the Vice-President to let him have the name of the author of it.

The VICE-PRESIDENT: Well, I won't at present; but I am only too happy to hear your contradiction of it. My object in mentioning the matter was to give you the opportunity of contradiction.

Mr. RANKIN: Mr. McNeight denies the statement *in toto*, and that should end the matter for the present.

Mr. MCNEIGHT said that if the names of any persons to whom it could be shown that he had made either verbally or in writing an erroneous statement of the law were given to him, he would be most happy to contradict the statement to

them. It was quite possible that at the time the Amendment Act passed he might have made some inaccurate statement, but he had no recollection of either speaking or writing to anyone beyond what he had stated now.

Mr. MOORE said he thought the name of the informant as to the alleged circular was the property of the Council and ought to be given.

The VICE-PRESIDENT said that as a member of the Law Committee he could not give it. According to the regulations the Law Committee had power to deal with these matters quite independently of the other members of the Council. They could take proceedings and report afterwards to the Council.

The Council then went into committee for the purpose of considering some letters connected with the prosecutions. Letters were read from Mr. J. L. McAlister, L.P.S.I., of Belfast, and Mr. J. T. Holmes, L.P.S.I., of Dublin, notifying changes of address.

CHEMISTS AND DRUGGISTS.

A report of the Declaration Committee relating to applications for registration under the Amendment Act, and setting forth the evidence given by each applicant, was read and discussed.

In the course of discussion the VICE-PRESIDENT remarked that in a great many cases applicants had been registered on their poisons-book; but in some cases poisons-books which were obviously manufactured had been sent to the committee.

The report stated that the committee had accepted the following for registration under Schedule A of the Amendment Act:—Messrs. Edward Spera, Boyle; William Moss, 11 Camherwell Terrace, Belfast; R. S. Pellissier, Clonmel; James Mulligan, Castlepollard; John Webb, Temple Lane, Dublin; Robert J. Downes, Dublin; J. O'Neil, Donnellan, Ballinrohc; Michael Rynne, Ennis; and Miss Jane Moore, Killucan.

The VICE-PRESIDENT called attention to a recommendation in the report that, although there were only nine candidates for examination as druggists in Belfast, an examination should nevertheless be held in that city, notwithstanding the rule requiring that there should be twelve candidates. The committee desired to save the gentlemen the trouble and expense of coming to Dublin; at the same time, they wished it to be understood that they would not make such a recommendation where there were only a few candidates.

The report was adopted.

THE EXAMINER IN PHARMACY.

Mr. BEGGS moved that Surgeon John Evans be re-elected Examiner in Practical Pharmacy.

Mr. DORAN seconded the motion.

The VICE-PRESIDENT, in putting it, said Surgeon Evans was a practical man, and had given them satisfaction, and there was no reason why he should not be re-elected.

The motion was unanimously agreed to.

NEW MEMBERS AND ASSOCIATES.

On the motion of the VICE-PRESIDENT, seconded by Mr. LYONS, the following were elected members of the Society: George W. Camlin, 87 Donegal Pass, Belfast; John Gorman, Bangor, Co. Down; James McAlister, 5 Clarendon Place, Belfast; Thomas H. Moffitt, 117 Crumlin Road, Belfast; John Thompson, 100 Peter Hill, Belfast.

On the motion of Mr. ROBINSON, seconded by the VICE-PRESIDENT, the following were elected associate druggists:—Richard Ellis, Maryville, Military Road, Limerick; Humphrey Smith, J.P., Mountmellick.

On the motion of Mr. BOYD, seconded by Mr. ROBINSON, the following were elected associate druggists:—Samuel E. Acheson, 42 Cromac Street, Belfast; Josiah P. Middleton, 12 Grafton Street, Dublin.

Proposed by Mr. MERRIN, seconded by Mr. BOYD:—Joseph Annesley, Arklow; Arthur Burns, Mohill; Mrs. Mary A. Bryne, Ballinakill; Mrs. E. M. Cunningham, Ballymore; J. F. Donaghy, 47 Lower Gardiner Street, Dublin; Denis Donohoe, Naas; Robert Dormer, Newtownbarry; Henry Farrell, Naas; Thomas E. Gordon, Gorey; J. R. Gorman, Ballymore; F. C. Judge, Mitchelstown; John Lavin, Elphin; Thomas Maxwell, 3 Alexandra Terrace, Bray; George Meares, Moyvore; Gerald O'Toole, Tullow; J. M. Ross

Carlow; E. P. Ryan, Thurles; John Smyth, Trim; and Patrick Toole, Westport.

On the motion of Mr. GRINDLEY, seconded by Mr. BEGGS, Mr. Johnston Montgomery and Mr. Samuel Gibson were appointed visitors to attend the examination of druggists to be held in Belfast on Tuesday, September 8.

On the motion of Mr. GRINDLEY, seconded by Mr. CHARLES EVANS, Mr. S. P. Boyd and Mr. P. Merrin were appointed visitors to attend the examination of druggists to be held in Dublin on September 3.

Mr. GIBSON said he had been asked by people in Belfast when they would get their certificates.

The VICE-PRESIDENT: There has been so much work to be done that the preparation of them has been delayed; but, if possible, they will be issued this month.

NOMINATIONS AND THE COUNCIL ELECTION.

Mr. W. J. McNEIGHT proposed, and Mr. W. F. MOORE seconded, a motion that the following be nominated for election as associate druggists:—Messrs. William Doyle, Athlone; J. J. McTighe, Roscrea; Wm. Walsh, Oldcastle; J. Keily, Frankford; James Pelan, Gorey; Thomas Fagan, Athboy; George Plunkett, Trim; Daniel Brogan, Castlepollard; Miss M. A. Egan, Kilkullen; Samuel Baker, Cork; and Patrick Egan, Tullamore.

On the motion of Mr. GIBSON, seconded by Mr. RANKIN, Mr. William Jameson, Townhall Street, Belfast, was nominated an associate druggist.

The VICE-PRESIDENT: These gentlemen cannot be elected in time for the October meeting of the Society.

Mr. McNEIGHT: Unless you call a special meeting for their election.

The VICE-PRESIDENT: The point has never been raised before as to whether we can elect on less than a month's notice.

Mr. GRINDLEY: We have hitherto acted on the principle of having candidates for membership of the Society nominated at one meeting and elected at the next monthly meeting.

The VICE-PRESIDENT: Of course, if Mr. McNeight presses for a special meeting, it will be my duty to call it. I should, however, like the Council to say whether it would be a right thing to do or not. My own reading of the rule is that I can do it, although I don't think it was contemplated.

Professor TICHBORNE: Special meetings are only intended to be called for the despatch of special business, but not for the election of members. Besides, a requisition, signed by seven members, should be sent to the President.

The VICE-PRESIDENT: No; it is quite sufficient for a member to ask the President to call a special meeting, and the President may do so, if he pleases. I will take on myself to call the special meeting if Mr. McNeight desires it.

Mr. McNEIGHT: I do.

Mr. McNEIGHT suggested that the voting-papers to be sent out for the election of the new Council, at the annual October meeting, should contain the addresses as well as the names of the candidates. At the last election, which was the only one he had as yet had any experience of, the addresses were omitted, and the result was that people did not know whether or not they were voting for men who could attend the Council meetings.

The VICE-PRESIDENT said the rule only required that the names of the candidates should be given.

The VICE-PRESIDENT moved, and Mr. GRINDLEY seconded, that the following be nominated for election as members:—Messrs. W. H. Griffin, R. J. Rousselle, W. R. S. Gilhert, Geo. Gilmore, J. F. Meyler, A. Watterson, Geo. M. Ryan, John Joze, T. J. McAdam, Richard Howard, William Bleakely, George Strong, J. A. Woodside, J. Black, R. J. Downes, J. Costello, W. H. Bowers, John P. Timmon, John J. Curtin, W. K. Bourke, W. R. Beck, J. Thompson, W. S. Duggan, W. Macartney, E. W. Allison, R. A. Jones, D. P. Brosnan, M. S. Lalor, R. J. Herron, E. S. Leyhonne, William Dowling, E. J. O'Callaghan, W. P. Ryan, J. Burnett, and W. D. Porter.

On the motion of Mr. P. J. LYONS, seconded by Mr. JOHNSTONE MONTGOMERY, Mr. R. W. McKnight, 43 Donegall Place, Belfast, was nominated for membership of the Society.

Some financial business having been disposed of, the Council adjourned.



Legal Reports.

THE GLASGOW TINNED PEAS TEST-CASE.

SHERIFF BIRNIE, Glasgow, heard arguments on Saturday last in the test-case regarding the wholesomeness

of tinned peas, greened with sulphate of copper. The evidence was published last week. Mr. John Lindsay appeared for Mr. Fyfe, the sanitary inspector, and Mr. D. T. Colquhoun represented the defender, Mr. Malcolm Campbell, fruiterer.

Mr. Lindsay said that if the peas were such as to render a person using them liable to injury to health the court was entitled to convict, unless the defender, in terms of the fifth section of the Food and Drugs Act, could show that he did not know the goods were mixed or coloured with sulphate of copper, and that he could not with reasonable diligence have obtained that knowledge. The essential question, therefore, was whether sulphate of copper mixed with peas was injurious to health. The witnesses who were examined for the prosecution were unhesitatingly of opinion that sulphate of copper was capable of producing acute or chronic poisoning, according to the dose that might be taken. The defender said that the legumens of the pea absorbed the copper, and rendered it inert. While admitting that the legumens absorbed some of the copper, Mr. Lindsay held that the evidence put before the court justified him in denying that it absorbed the whole. His lordship, he thought, would be inclined to hold on the evidence he had heard that the gastric juice and other powerful organic solvents in the stomach and intestines were sufficient to render copper soluble to some extent. If it was digested it was soluble; but if the defender was correct in his contention that it was insoluble, then it was indigestible, and in either case it was injurious to health. Referring to the note on the tin to the effect that, although the peas contained a minute quantity of copper, they were warranted not injurious to health, he maintained that the fact that the words on the label were suggested by Dr. Clark, the public analyst, did not prejudice the case for the prosecution.

The Sheriff: I think Mr. Campbell is perfectly entitled to try the question after getting that from Dr. Clark. I don't think you need trouble yourself about that.

Mr. Lindsay said the defence was an apology, and a miserable apology at the best, for the use of this poisonous compound in food. He submitted that the sale of coppered peas was not at all satisfactory. What the defender asked his lordship to do was to grant a certificate for the sale of these peas, mixed as they were. That authority should not be given. If there was any doubt as to sulphate of copper being injurious to health, the public should have the benefit of the doubt.

Mr. Colquhoun said that, in support of a quasi-criminal charge of this kind, involving penal consequences, one would naturally have expected that some practical evidence would have been submitted by the prosecution to show that the eating of such peas had, as a matter of fact, caused injury to health; but no such evidence had been adduced. For ten out of the twelve months of every year such tinned peas as those in question were most extensively used—one might almost say exclusively—used in Glasgow, and Glasgow might be taken as affording a good example of the habitual use of these peas in every town and city throughout Europe. If, therefore, any injury to health had ever resulted from the use of such peas, it was surely reasonable to assume that the prosecutor would have been able to quote a case, or give a reference to one, because, had such a case occurred,

it would certainly have been recorded in one or other of the medical books dealing with the application of sulphate of copper and its effects. The fact was that no case had ever been known, notwithstanding the enormous quantity of such peas in daily use, and the medical gentleman examined for the prosecution confirmed that fact. In support of his contention that the sulphate of copper on tinned peas is harmless, Mr. Colquhoun quoted the following passage from Dr. Wood's "Therapeutics":—"Copper is habitually used upon the Continent of Europe, especially in France and Belgium, in the preparation of vegetables—French peas, beans, &c. owing their attractive colour to their treatment with copper, which can be recognised in them. The possibility of injury resulting from the use of such food has been repeatedly investigated by French and Belgian commissions, and the general verdict has been that no harm is produced. The fact that twenty millions of cans of these food articles are consumed every year, and that after 36 years' continuance of the custom it has not been established that any harm is done, is sufficient in itself to prove that the vegetables are not poisonous." The opinions of the medical witnesses for the defence again were confirmed by the evidence of Dr. Clark, the city analyst, who admitted that he did not consider that the scientific results showed that the peas were injurious to health; and also by the action of the French Government in 1889. Previous to that year the French Government prohibited peas greened with sulphate of copper from being sold in France, but in consequence of the results of scientific investigations, conducted by the highest medical authorities in France, the prohibition was withdrawn. The views of the defence were further supported by Professor Lehmann in his recent paper read before the Hygienic Congress in London last month.

Sheriff Birnie said he would give judgment on the following Saturday.

THE POISONED GRAIN ACT.

IN cap. 113 of the Act of 26 and 27 Vict., an Act to prohibit the sale and use of poisoned grain, meal, or seed, it is provided that "every person who shall knowingly and wilfully sow, cast, set, lay, put, or place, or cause to be sown, cast, set, laid, put, or placed, into, in, or upon any ground or other exposed place or situation any grain, seed, or meal which has been steeped or dipped in poison, or with which poison or any ingredient or preparation has been so mixed as thereby to render such grain, seed, or meal poisonous and calculated to destroy life, shall, upon a summary conviction, be liable to a penalty of any sum not exceeding 10*l*." Under this section a woman named Elizabeth Judd, of Little Baddow, was summoned a week ago before the magistrates at Chelmsford, for having put down some pieces of poisoned bread in her garden for the purpose of poisoning her neighbour's chickens. Mr. Wm. Tanner appeared to defend the woman. The fact that she did put down bread poisoned with phosphorus paste was proved beyond dispute. But, said Mr. Tanner, that is no offence. The Act says nothing about bread, it speaks simply of "grain, seed, or meal." Bread is not one of these. The bench thought they could not convict in the face of this circumstance, and they accordingly dismissed the summons.

FORGING A CHARACTER.

ON Tuesday last, at the Sheffield Town Hall, before Mr. Skelton Cole and Mr. J. E. Bingham, William Rogers, a chemist's assistant, who formerly lived at Hanley, was charged with having obtained a situation with Mr. Robert William Watson, chemist, No. 22 Angel Street, by means of a forged character. Mr. A. Neal defended.

The Prosecutor stated that in consequence of seeing the prisoner's advertisement in THE CHEMIST AND DRUGGIST, he wrote to him at Hanley on August 11. He received the following reply from the prisoner:—

56 Lichfield Street, Hanley.

August 10, 1891.

Dear Sir, Your letter to hand. I beg to say that I desire a manager's situation. I am 30 years of age, qualified by Minor examination, and am well up in dispensing, prescribing, and the general routine. I am

married two years, without family. I have been for the past two years with Mr. James Taylor, chemist, 50 Pall Mall, in this town. Reference to him will, I am sure, be found satisfactory. I left him a month ago of my own accord. I may say that I am considered a good tooth extractor. I regret that I have not a *carte* to send you. I ask 37s. per week, with prospects of an advance if business is improved. I make it a special point to push business. Should you think I am likely to suit you, kindly favour me with an early reply, as I have other letters I might deal with, but I think I should prefer your place.

Yours very faithfully,

W. ROGERS.

He afterwards received the following testimonial, prisoner having supplied him with the address:—

July 14, 1891.

Dear Sir,—I find your letter waiting me, *re* Mr. Rogers, my late assistant. I have been from home a week. I am glad to be able to say that I can recommend him to you as a good, steady man, very obliging with customers, and you will find his manner decidedly agreeable. He has been with me two years, and I, being an old man, have left him practically to himself, and have always found him correct. He left me of his own accord. I think you will be satisfied with him.

Regretting the delay,

I am, yours truly,

JAMES TAYLOR.

The paper on which the letter was written had the following printed heading:—"Memorandum. From James Taylor, dispensing chemist, 50 Pall Mall, Hanley. Select perfumery and toilet articles. Teeth carefully extracted."

Thinking the testimonial was genuine, and that the prisoner was properly qualified, witness engaged him, and he commenced work on August 24. It was part of his duty to dispense prescriptions, and witness noticed that he did not go about his work in a proper manner. He then said to the prisoner, "I think you have not been much used to dispensing," and he replied, "Not for the last two years, but I shall soon pick it up." From Rogers's manner of conducting business he (witness) was not satisfied with his testimonial, and on making inquiries found there was no such person as "James Taylor, dispensing chemist, Pall Mall, Hanley." He paid the prisoner his wages on August 31, and he went off to dinner, but did not return. On September 2 a warrant was applied for.

Detective-inspector Moody stated that the prisoner was arrested at Hanley and handed over to the Sheffield police. He charged him with the offence, and he replied that the testimonial was a forgery and there was no such person as James Taylor of Hanley.

Mr. Neal, in defence, said the prisoner admitted the offence, but said it had been committed under great temptation. The prisoner was out of a situation for more than a year, and had a wife dependent upon him. He had served a five years' apprenticeship, and was employed for three years afterwards at the same place. His character had previously been excellent, and the offence was simply committed to get employment.

Mr. Cole said the magistrates could not but look upon the case as a very serious one, as everything the prisoner had done was with the deliberate intention to deceive. It was a serious matter that he should be dispensing medicine for the public, as a mistake attended with grave results might have occurred. As this was the prisoner's first offence he would have to pay a fine of 5*l.*, including costs, or go to prison for a month.

Prisoner's mother promised to pay the money.

SEIDLITZ POWDERS.

At the West London Police Court last week Mr. Kennedy had before him four summonses, issued by the Fulham Vestry, against shopkeepers in respect of the sale of Seidlitz powders, which, it was alleged, were not of the nature and quality demanded. In two of the cases it was stated that sulphate of magnesia had been used in the composition in place of tartarated soda.

Mr. Green, for the defence, said the powders were sold in the same state as they were purchased. In the recent action of the sanitary department, of which he did not complain, a discovery was made that Seidlitz powders as sold did not come up to the standard of the British Pharmacopœia. He had been to the person who had manufactured the powders for the last twenty years, and ascertained that he was not aware of there being a legal standard. The powders

were now labelled "effervescing salts." Seidlitz powders formed a kind of nondescript term for an effervescing drink.

Dr. Corney, the Medical Officer of Health for Fulham, was called, and said the powders were not as laid down by the Pharmacopœia, and in some cases would be injurious to health. The vestry did not wish to press for a penalty, but only to prevent the sale.

Mr. Kennedy, after hearing the evidence of the manufacturer, asked him in a jocular manner if he had heard what dreadful stuff he had been making at New Cross.

The manufacturer, in reply, said: I don't think we have killed anyone. (Laughter.) They are in a pretty good state of health in that neighbourhood. (Renewed laughter.)

Ultimately all the summonses were withdrawn, on the defendants paying the costs of the proceedings, namely, 12*s.* 6*d.* in each case, 10*s.* 6*d.* for the analyst, and 2*s.* for the summons.

BANKRUPTCY REPORT.

Re JOHN HINTON, of High Street, Stourport, Chemist.

LIABILITIES, 139*l.* 15*s.* 10*d.*; assets, 52*l.* 11*s.* 9*d.* Public examination at the Town Hall, Kidderminster on September 4, before Mr. Registrar Talbot. Mr. Jobson, Official Receiver, conducted the examination, and the debtor was represented by Mr. Matthews, from the office of Mr. Thrsfield. The debtor said he had been in business twenty-eight years, and for a considerable time the business paid. He saved 500*l.*, which he lent and lost. He borrowed money from his father at different times and had paid no rent since 1887, when his father purchased the shop. His father, who died last year, had never asked for rent. The furniture was also his father's executors', but had been sold by order of the Official Receiver. He had insured his life, but the policy was held by his father's executors, as there was a mortgage on it. The Official Receiver asked that the examination should be adjourned, so that the policy could be handed over to him, and this was granted, the Official Receiver stating that he should not admit the claim of the executors for 73*l.* 10*s.* for rent.

SEQUAH (LIMITED).

THE first annual general meeting of the shareholders in Sequah (Limited), was held at Winchester House, Old Broad Street, E.C., on Friday, September 4, Mr. Henry G. Hemmerde presiding.

The Secretary (Mr. A. W. Gunnell) having read the notice convening the meeting.

The Chairman said: Ladies and Gentlemen,—In the absence of Mr. Ridsdale, who is unfortunately seriously ill, I have been asked to present the first report and balance-sheet of this company to you. The first point I have to touch upon is the difficulties which have arisen with the Government. Upon this subject I will read you a letter which we received from the Inland Revenue Office, Somerset House, on October 27 last year. It is as follows:—

The Board of Inland Revenue are in receipt of a report from their collector at Liverpool in reference to an application made to him on the 7th inst. by one of the agents of the "Sequah" Company for a licence to vend patent medicines from a chariot at "The Hollow," Mill Street, Toxteth Park. The collector stated that the place in question is simply a piece of waste land, on which, as admitted by your agent, there is no house or building, and that he declined to grant the licence on the ground that the proposed place of sale was not a "set of premises" as required by section 9 of the Act of 53 Vict. cap. 8. The Board are now advised that the collector was fully justified in the course taken by him, and they desire me definitely to point out to you, for your future guidance in conducting the business of the Company, that an excise licence cannot be granted for the sale of medicines elsewhere than upon a set of premises, and that such sales as have been conducted at Liverpool must be at once discontinued both there and elsewhere.

The action of the Government, which was fought against in every possible manner, has resulted in the falling off of

our retail trade of about 33 per cent. We also lost quite three months—perhaps more than three months—of our trading in consequence of the waggons having to be prepared to send abroad to open up new places for the sale of our goods where this law does not exist. The business has now been opened up in Africa, India, West Indies, Spain, Holland, and Belgium. The last two countries named have only been opened up within the last month of the year under review. Good returns are coming in from all these places. Mr. Hartley is in America at the present moment opening up a business there, but so far we have not received any returns from him. In consequence of there having been a falling off in the company's trading, the directors have decided to suffer the loss with the shareholders, and have therefore reduced their fees from 300*l.* a year each to 100*l.* a year each, on the understanding that in the event of a dividend of 15 per cent. or more being declared they could claim their full fees afterwards. The salaries for the ensuing year will also be very much reduced. Of course, while our waggons were working in England we had to pay fairly high salaries to those who had charge of them because they might otherwise have opposed us, but that is all over now as these men are mostly abroad. The law charges, you will find, are rather heavy this year, but that is usually the case in the first year that a company starts. A great many agreements and other documents have to be prepared, but that expenditure will not occur again. Then we have an item in our profit and loss account, "depreciation on plant, &c., 1,673*l.*" This has been provided for by writing off about 15 per cent., which the directors consider ample under the circumstances, because our waggons, instead of being depreciated, are really better than they were inasmuch as they have all been thoroughly repaired and done up before being sent abroad. All the horses which we had here have been sold at a profit. They were bought young, and in consequence of the light nature of the work to which they were put, they did not deteriorate but improved, and they were therefore all sold at a profit. We have written off 1,547*l.* for bad and doubtful debts, but the directors do not look upon this as a writing off but more as a reserve, inasmuch as we are convinced that only a small amount of this 1,547*l.* will rank as bad debts eventually. In consequence of the death of Mr. F. Bennoch last year, and the resignation of Mr. E. C. Elgood, there were two vacancies on the Board, and these have been filled by the election of Mr. John Davis and Mr. Emil Danziger, and both these gentlemen have great technical knowledge of the business. Mr. Danziger manages our business at Farringdon Street at the present moment. The advertising for the year shows an expenditure of 5,359*l.* A very large amount of this advertising has been entered into in foreign countries, and as in many cases it only had the effect of about a month on this year's trading, the directors thought it would be a good plan to write off two-thirds of that amount for this year's advertising, and to carry the other third forward. We have also started, or rather extended, a system of house-to-house advertising, and this has produced very good results indeed. I have here a letter from Mr. Purchase, our solicitor, who writes: "I have received a private letter from Mr. W. H. Hartley, and the following is an extract from it:—

Please request the chairman of the Company to state at the general meeting that I attribute the diminished profits of this half-year to the action of the Somerset House authorities in so varying the patent-medicine law as to render it practically impossible for us in future to sell our remedies as heretofore from the waggons. The alteration in the law is contained in an Act passed last year making it imperative for us to take a separate licence for each set of premises, and when it was contended by us that each waggon was a set of premises the authorities declined to admit this, and refused to allow licences to be granted for the sale of goods from the waggons. Efforts were made to get over this difficulty by every possible means, but without avail, and consequently I felt it necessary, in the interests of the shareholders, to at once seek fresh grounds for our business, and outfits were sent as soon as possible to South Africa, India, the West Indies, and other places, and I made preparations for starting the business in America, and am now about to commence operations, which, from all I can see, should prove of great value, and result in large profits to the shareholders.

The net profit for the year amounts to 40,107*l.* Of this 25,000*l.* has already been distributed in interim dividends, leaving a balance now available of 15,107*l.* 7*s.* 3*d.* for

dividend. The directors therefore recommend a dividend at the rate of 10 per cent. on the preference shares and 8 per cent. on the ordinary shares. This will absorb 13,000*l.*, leaving a balance of 2,107*l.* 7*s.* 3*d.* to be carried forward to next account. That means a total dividend for the year of 10 per cent. on the preference shares and 14 per cent. on the ordinary shares. That is very satisfactory considering the difficulties we have had to contend with. If any shareholder has any questions to ask I shall be very happy to answer them, and I will now move that the report and balance-sheet be received and adopted.

The motion was seconded by Mr. Emil Danziger.

A Shareholder inquired what the amount of turnover was upon which this profit had been earned—what were the sales for the year?

The Chairman replied that it would be impossible to present a trading account to the general meeting of shareholders. It had been shown to the satisfaction of the auditors.

Answering Mr. J. de Vaizey, the chairman said the sum of 1,764*l.* 18*s.* 8*d.* given in the profit and loss account under the heading of trade expenses represented the petty cash outgoings, or, in other words, all the general expenses of the company. The office expenses, &c., were included therein, but the manufacturing expenses were another thing altogether; the latter were shown in the trading account. The sum written off for advertising expenses was deducted from the gross profit before the profit of 40,107*l.*, as shown in the statement of accounts, was arrived at. In reply to another shareholder, who asked what investments were represented by the sum of 1,500*l.* given under that heading in the balance sheet, the chairman said it would be obviously inexpedient to specify them at this meeting, but any shareholder calling at the office could obtain information on the subject from the secretary.

A Shareholder: It was said in the prospectus that we might have profits from certain other sales. May I ask if those other businesses are doing well, and whether we are making good profits?

The Chairman: We are quite satisfied so far. They are in course of development, but of course we cannot expect anything very considerable from them yet.

Mr. Stocks: May I ask when the action was taken by Somerset House?

The Chairman: In October of last year.

In answer to another question, the chairman said that in consequence of the action referred to, a certain amount of the retail trade had to cease. The waggon trade in England was practically stopped, but it continued in Ireland, where this law was not in force. The wholesale trade was progressing very favourably indeed.

Mr. Elgood said he believed that those who were desirous of buying their medicines now went to chemists' shops instead of going to their waggons, so that they now saved all the expense of waggons.

The Chairman: That is so.

Mr. Berry directed attention to the fact that the calls in arrear amounted to 274*l.*, and he desired to know whether any steps would be taken to obtain those calls.

The Chairman replied that it was not always easy to get the calls in arrear in at once, but the shareholders would be charged interest for the calls unpaid.

Mr. Butler wished to know whether the advertising expenses would not increase in consequence of their waggons being stopped in England.

The Chairman did not think the advertising expenses would increase, but a business like theirs could not be carried on without advertising.

The motion was then put and carried unanimously.

The Chairman moved that a dividend at the rate of 10 per cent. per annum on the preference shares and 8 per cent. per annum on the ordinary shares for the last six months of the year be declared.

Mr. W. S. Oliver seconded the resolution, which was carried unanimously.

The re-election of the auditors, Messrs. Ernest Cooper (Cooper Bros. & Co.), and W. P. Eldrid (Isitt, Eldrid & Co.) was proposed by the Chairman, and this having been seconded by Mr. Danziger, was agreed to.

On the proposition of Mr. Ball a hearty vote of thanks was accorded to the chairman, and the proceedings then terminated.

IN THE MITCHAM FLOWER-FIELDS.



THE benevolent fairy who conducts the day-in-the-country-fund for jaded pressmen smiled upon the editorial staff of THE CHEMIST AND DRUGGIST the other day, and summoned one of its members to arise and betake himself to where the lavender-fields are purple with blossom and the peppermint rears its head in its pride. In obedience to the call our man, accompanied by a trusty and experienced guide, was presently whirling along the London-Brighton line to a spot indicated upon the railway-bank in letters of burnt ballast, coal, and chalk, by the unromantic name of Waddon.

Just before reaching that starting-point of the peppermint pilgrimage, a whiff of a familiar odour diffused the compartment, and directed attention to an eighteenth-century country cottage, flanked by a large black shed, upon the tarred boards of which the sunlight played brilliantly, while within several stills were busy exhausting their fragrant charges. At the other side of the road our man espied numerous patches of lavender, evidently much damaged by frost, and of weed-strangled peppermint. These, we were informed, belonged to several small local cultivators. The principal object of our man's journey was to obtain ocular evidence of the state of the essential-oil crops, but as one or two distilling-sheds—"factories" they scarcely deserve to be called—are established within a stone's throw of Waddon Station, and the prospective ramble through the fields was almost certain to lead us far from our starting-point, it was decided to pay a preliminary visit to one of the distilling headquarters before "trekking" into the far-stretching russet and green-hued fields that lay before us, basking in the warm September sun, and almost imperceptibly blending with the steel grey hills on the horizon. Waddon is not altogether a romantic spot. Around the station spreads a settlement of more or less pretentious villa residences, "partly in block, partly in detached pieces," to borrow a classic phrase from the market-report, and behind the mock-ancient house-fronts the newly-washed domestic linen of Waddonian villadom fluttered unabashed upon ropes stretching from black paling to black paling across the gardens *boites-à-tiroir* that form an indispensable appanage of these eligible residences.

THE FIRST STILL-HOUSE.

Turning sharply to the left, and plunging our way along a rather moist cart-rut, a large shed (not the one we had noticed from the carriage window) was reached. It was brick-built to a height of about five feet, the superstructure consisting of tarred boards. Here work was proceeding with the nearest approach to the nervous haste of the town factory of which the bucolic frame is capable.

Three large carts, laden with freshly-cut peppermint-herb, were drawn up alongside the shed, and while the horses peacefully munched the contents of their nosebags, a wooden-faced, stubble-bearded, and stolid-looking labourer, standing upon the load, seized the matsful of herb one after another with the measured precision of an automaton, and jerked them upon the upper floor of the shed, to be pounced upon by his equally stolid and automatic-looking mate.

Before tracing the further progress of the mats we will cast a glance at the distilling apparatus. We said that the shed was a large building—of its kind. It is probably about seventeen feet high, and is divided into two storeys, at a height of about eight feet from the ground, by a strong wooden flooring securely resting upon rafters. Access to the upper floor is obtained by two steep wooden ladders. The shed holds two complete stills, each one of which rests upon a solid brick-built furnace, the masonry of which reaches to the upper floor, and which is surmounted by a huge apple-shaped copper container, into which is packed the material for distillation. A massive copper still-head is affixed to the charged container; heat is applied from below; the water begins to boil, and carries away in its vapour the volatile oil from the herb. The oil-laden vapour passes through an enormous worm, the coils of which measure from 200 to 300 feet from end to end. The worm is immersed in a huge wooden vat, from 9 to 10 feet in height, and between 40 and 50 feet in circumference, filled with cold water. There the vapour condenses and runs as water through the end of the worm, which projects from the lower part of the vat about $2\frac{1}{2}$ feet from the ground, into a copper container. Oil and water separate in this container, the former floating on the surface, where it is collected, filtered (sometimes re-distilled), and bottled for the market. Such, in brief, is the process of distillation, which has been often described, but is none the worse for repetition here. It may be remarked, in passing, that the Mitcham stills are probably, taken all round, the largest used for the distillation of essential oils. They are very much larger than the apparatus in use at the flower farms of Southern France, and, we may add, more antiquated also.

THE SHRINKAGE OF THE HERB FIELDS.

Now let us return to our friend on the top of the van, who by this time is approaching the last mat of his load. All herbs grown in the Mitcham district, with a view to distillation, are brought to the still in mats of a coarse fibre, known as "bass"—the piassava of the produce trade. The cultivation of medicinal and fragrant plants is now practically limited to three varieties—peppermint, lavender, and camomile. Here and there an odd corner is still planted with rosemary, spearmint, or pennyroyal; but the many roots, herbs, and flowers for which Surrey was renowned in former years—liquorice, poppy-heads, belladonna, lovage, stramonium, roses, and what not—are now scarcely known there as articles of home growth. A mat of lavender weighs from 100 lbs. to 120 lbs., a mat of peppermint a little more. The mats which we saw unloaded were small ones, and a pair-horse van comfortably held forty-seven of them. In the field the herb is placed upon the mats flower-heads inwards, and the two ends of the matting are simply skewered together with three bits of wood, somewhat resembling clothes-pegs. Our automatic friend number two, on the upper floor, who receives the mats from his mate on the cart, deftly withdraws the three skewers, throws them on a heap in a corner, and "chucks" the contents of the mat into the depths of the red copper container over the furnace, whence

a voice is heard at intervals—"of course the proverbial still small voice, which may naturally be looked for from such a quarter," opines a punster. Wrong, my worthy friend, the voice is a stentorian one, and its accents reveal a brogue of the richest emerald green. Presently the owner of the brogue appears in person, trampling upon the herb in the now fast-filling container, and reveals himself as a burly Irishman, sometimes answering to the name of Mike, and sometimes declining altogether to answer, for his temper is uncertain. Mike is understood to be the "strongest man in Surrey," an assertion to which his herculean frame and the enormous biceps of his ochre-coloured arms impart the stamp of truth. He is now rapidly emerging from the still, all the while stamping down the herb within with the whole weight of his enormous body, the task causing him to perspire and mutter freely. He is not a communicative Irishman, and stern veracity compels us to state that we found it utterly impossible to extract from him anything in the way of "comic" copy, of which every Irishman in print, from Thackeray to the melodramatists of the "Princess's," is expected to contribute his regulation quota. "That is young mint," said our companion, picking up a bunch of the herb, "but it's fine mint all the same, and not a bit of 'snuff' on it!"

THE STILL STARTED.

"I call that good mint, now!" he added, throwing the bunch into the container, the last contribution to its charge. Mike thought it was some of the first year's growth, and then, without wasting words, proceeded to let in the water



THE FIRST STILL-HOUSE.

into the container. When enough water has been admitted to fill the copper halfway up (a limit which the filler of the container ascertains by pulling out the pole placed in the centre of the container, around which he has trampled down the plant, and placing his arm in the aperture thus created), the massive copper condenser, or head, is let down by means of a crane, and firmly riveted upon the still. The cooling vat has meanwhile been filled with water, the fire is kindled in the furnace below, and the distilling operation is started. Most of the stills in Mitcham are very old, and combine in a high degree that excellence of material and thoroughness of workmanship which at one time were always synonymous with the term "English manufacture."

THE OLD SYSTEM.

But in the distilling operation itself no improvement appears to have been thought of since distilling first began in the county of Surrey. The main part of the process, it is true, is probably not susceptible to improvement, but one cannot help thinking, as one watches the process from the beginning to the end, that experience would have recalled some means of rendering the yield more uniform in quality, of exhausting the material more thoroughly, and of using to greater advantage the water of distillation now allowed to run to waste at most of the still-houses. The distillation of a charge of peppermint herb—the average capacity of a container is somewhat above 20 cwts.—takes six hours from beginning to end, and in busy

seasons some of the stills are kept going day and night, about 18 tons of fresh herb being thus treated from week's end to week's end. The stillman is required to exercise considerable skill in regulating the heat of the fire. His practised hand, by touching the copper head of the still, is able to discern the moment when the oil commences to "come over." Most of the oil is carried away during the first two hours of the operation, after that time very little is gained, and the quality of the first oil is perceptibly finer than that of the later distillate. The lavender plant appears to become exhausted more quickly than the peppermint herb, and the camomile still quicker. As a proof of the lack of experimental enterprise which characterises some of the distillers, it may be mentioned that, during our peregrinations through the district, we were told that one of the stills of a certain proprietor had for some seasons yielded a product distinctly inferior to that which it produced in former years. The deterioration dated from the time when a leakage in the still-head had been repaired, and it is surmised that it was caused by the use of an inferior kind of tin in the patched place. But no further trouble had been taken to ascertain beyond doubt, and to remove, the cause of the deterioration, the owner simply taking the untoward event as a kind of unalterable visitation, as who should fold his hands and cry out, "Bismillah!" after the manner of the unspeakable Turk.

THE RECEIVER.

In a corner of the lower floor of the first still-house which we visited lay a big heap of the slaty coal with which the furnace is fed. A good-sized still, working at full pressure, requires half a ton of coal per day. A rude wooden hench, a few receivers—the large tin-canisters, provided with a long tea-kettle spout, into which the worm pours out its charge of oil and water of condensation—and some odds and ends in the way of apparatus, complete the equipment of this portion of the building. Where the end of the worm projects from the cooling vat a wooden bin, covered with a wire-netting grating, is attached to the still. In this bin, which completely covers the aperture of the worm, the receiver is placed, and the wire-netting lid is secured with a padlock, tampering with the running oil being thereby rendered practically impossible.

The practice of thus encasing and securing the receiver is almost universal, and it should be remembered, in explanation of this fact, that most of the smaller cultivators have no stills of their own, but pay the still-owners for the use of their apparatus. The bin, to which the cultivator can affix his own padlock, is thus the only guarantee he has that he receives the full product of his herb. The fee for distilling is about 20s. per "charge" for a still of moderate size. In years of a fair average crop, a "charge" should yield about 8 lbs. of oil. At the time of our visit to the first still-house, the proprietor of which grows little or no herb himself, but almost exclusively distils that of the smaller growers, one of the two stills was just being emptied of the exhausted herb, while in the other the process of "charging" with fresh herb was proceeding.

We will now again ascend the steep wooden ladder leading to the upper floor, and witness the work of

DISCHARGING THE STILL.

The regulation time allowed for the distilling operation has just come to an end. The huge still-head has been removed from the copper container, and clouds of poignant-aromatic fumes, most unpleasantly assailing the nose and eyes of the unacclimatised visitor, ascend from the seething mass of exhausted herb below. The still is the smaller one of the two in the shed, yet it holds about 20 cwts. of raw—or rather cooked—material. Two men are busy at the work of emptying it. One works the crank of the windlass, from which runs a chain, passing through a hook in the ceiling, and fastened to the end of a heavy six-pronged fork manipulated by the second labourer. The latter gives the signal. Down go chain and fork; a load of the reeking herb is secured. Another sign—the chain tightens, and, by the united efforts of the two men, a huge forkful of herb is brought to the surface, and thrown through a trap-door into the yard below.

THE WASTE-WATERS.

The exhausted herb is left to dry in the open and used as manure. Behind the still-house is a huge stack of it, lavender and peppermint mixed, the sweetest smelling manure heap one could wish to see. While the container is being emptied above the water of distillation runs out below. It runs to waste. So does the water of condensation from the receiver when the layer of oil has been drawn off. Way down the back yard, past the perfumed dung-heap of exhausted herb, you may trace the little stream of these yet oily waters. It has gradually hollowed out a channel through the light soil, and is lost into a miniature pool on the top of which floats a shimmering bronze layer of volatile oil, carrying the imagination to the petroleum-charged waters of some Central Asian lake. "Are you sure that you could not obtain a larger percentage of oil from your herb than you do now? Could no use be found for the waters that have played so useful a part in the distillation?" We could not help asking. No—they thought not. In some places the water of condensation from the lavender stills is given to the workman as a perquisite, and they sell it by the quart for a trifle, but, generally speaking, no serious effort is made to utilise the by-products.

The same stills are used, of course, for peppermint, lavender, or camomile distillation. When a charge of mint follows one of lavender, the worm of the still is well washed with boiling water; but if lavender follows mint, and especially if camomile has been the preceding charge, it is necessary to boil out the still with lime and water.

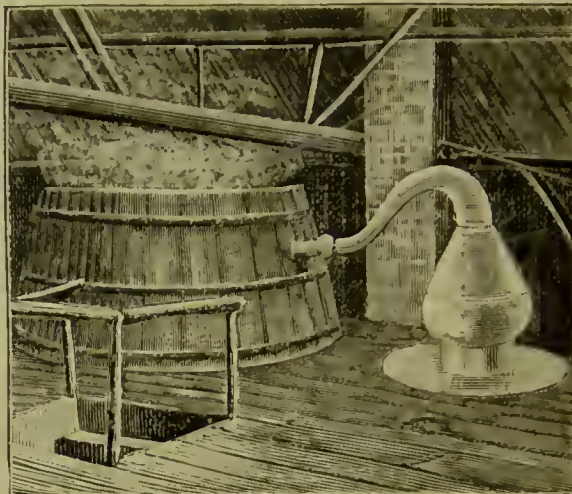
THE LADY OF THE LAVENDER.

Another still-house, containing four stills, in the same neighbourhood, is owned by a lady, the daughter of a farmer lately deceased, who carried on the business of an herb-grower for many years in succession. The lady in question does not now cultivate any land, but she has many clients who send her their produce for distillation, and she also deals in essential oils, of which she is no mean judge. Woman's strength is in her weakness, and after a short interview with the excellent business woman who, from her modest old country cottage in Mitcham, deals with the smartest firms in the essential oil business in the City, and is enterprising enough to send her prettily beribboned bottles of lavender water and salts (and very good salts at that) to exhibitions from Kamtschatka to Peru, our man commenced his walk through the fields with a depressed conviction that at the very moment the sexes are placed upon a footing of perfect equality—equality will vanish for ever, and man become of no more account in the management of the world than the peliosanrus. With a meekly triumphant smile the good Mitcham lady unrolled a handsome scroll of paper setting forth that her essential oils and salts had been awarded a gold medal at the Grand International Exhibition of Yucatan, and handed it for inspection to her visitors. Our guide, who is himself in the essential oil trade, but had not exhibited in Yucatan, and had no more thought of competing at the World's Fair in the Fiji Islands (where the lady, with quiet confidence, announced her intention of exhibiting her oils next year), than of flying to the planet Venus, at once began to show signs of distress. He felt that the masculine dealers would have to look to their laurels if they did not want to be outdistanced by their lady-competitor. Accepting the proffered offering from her store of lavender water and salts, we departed with feelings of sincere admiration for the plucky lady who, for business enterprise and acuteness, can give points to most of her masculine competitors.

A LAVENDER FIELD.

Our way now took us along many fields of black mint, the principal variety grown in this neighbourhood. It did not require a proficient herb grower to discern how poor the crop looked. The day of our visit was the first day of undiluted and uninterrupted sunshine that Wallington had enjoyed for many weeks. Most of the land was badly weeded, and in some places bare patches of soil proclaimed the ravages wrought by the winter frosts. Acre upon acre was pointed out to us which had been converted from peppermint or lavender into potato or cabbage land. And scarcely any new herb fields had been laid out this season. Presently we

halted at a large stretch of land whence the sweet odour of lavender was wafted in bountiful waves. Passing through a gate we found ourselves in a wide field, covering, may be, some fifty or sixty acres. The field itself was completely treeless—no shade is wanted on herb fields—but it was sheltered in the east by a small wood, while its other sides were bounded by single rows of tall trees. A road divided



THE STILL STARTED.

the place in two, the half lying to our right-hand being partly devoted to market produce, the other being entirely under herb. First there was a long stretch of "white mint," a comparatively rare sight in this part of the district. There is no botanical difference between the white and the black mint, and there are probably not half-a-dozen men living who could accurately distinguish by colour, taste, or smell the oil of the white mint from that of the black, but for all that white Mitcham mint realises a considerably higher price than black, and is accounted the finest variety of peppermint oil extant. The plants are distinguished easily enough. The leaf of the black mint is of a very dark green, and the flowers, as the herb stands in the field, are scarcely perceptible.

MINT AND CAMOMILES.

But the white mint, in addition to its paler foliage, has a distinctly marked mauve and pale-grey coloured flower, and, seen from a distance, a field of white peppermint closely resembles one of lavender. The yield of essential oil from the white mint is considerably less than that from the black. It is usually calculated at about three-fourths, but the largest grower of white mint in the county, about whom more anon, told us that he estimated the output from the white at very little more than half that of the black plant. The peppermint plants, both black and white, are planted in long rows, and require careful weeding. The first year's crop is always a poor one, and does little more than pay the cost of production, and the farmer looks to the second and third year's crops for his remuneration. After the harvest of the third, or sometimes the fourth season, the new runners are hoed; "dotting" is the local term for this operation. In the month of November the old plants are ploughed in, and the new ones covered to protect them from the frost. Next to the peppermint strip was a large area under camomiles; the finest camomile field, as the owner, who had joined us meanwhile, observed, that could be found in England this year. Very pretty the delicate snow-white double flowers looked, growing in large circular patches of green. Last year the crop was so thick, and the flower-stalks grew to such height, that one plant touched and up-lifted its neighbour until the leaves and stalks were completely hidden, and the broad field looked as if covered with fresh snow. But this year the crop is not only late—quite half the flowers were yet immature—but excessively thin, and black spots of weeded earth were painfully frequent among the white and green of the plants. Camomiles are distilled when the peppermint and lavender

oils have been extracted, but there will scarcely be any oil this season, and the proprietor rubbed his hands in glee at the prospect of a "famine price." "Don't sell a pound under 60s., mate," warned our guide, and the proprietor needed little persuasion to take the hint. We suggested that it might pay to sell the flowers to the druggists, camomiles being so short this year in Belgium and France that the beautiful soft English flowers would be certain to fetch a very high price. But the decision to throw them into the still was unalterable. Adjoining the camomiles was more mint, and the furthest portion of the farm was covered with an immense field of purple lavender—relieved here and there by a solitary scarlet poppy—now rapidly falling before the hooks of the cutters.

DISTILLING v. BUNCHING.

"Is all this lavender going to be distilled?" was our query. "Most of it. We bunch some and send it to Covent Garden, where it has fetched from 3s. to 4s. per dozen bunches this season, and may send some more there; but with the prospect of high oil-prices this season we rather think it is better policy to distil our herb. But we reckon that, unless we can get 50s. per lb. for our lavender oil, it would have paid us just as well to bunch it and sell it at Covent Garden." The proprietor then recalled memories of 1881, the black-letter year in the lavender-trade, when eight guineas was paid for a pound of the oil, and hardly any could be obtained at that price. But there is no chance of a recurrence of such a figure this season. We had now reached the spot where the cutters were at work. Armed with a sickle, the cutter seizes a plant, which grows about 2½ feet high—lavender, like peppermint, is neatly planted in rows—cuts it off about 6 inches from the ground, and places it upon the mat which has been spread out beside him, care being always taken to turn the lower part of the herb outwards.

JERRY KEEPS MARCHING ON.

"Mind what you are about," observed the proprietor, as our companion took up a large bunch of the freshly-cut herb and carried it to his nose. "There are plenty of bees in it to-day." And so there were. The field was alive with the trumpeting of the busy insects, buzzing briskly in the brilliant sunlight. The bright blue sky flaked with downy cloudlets, presaging fine weather, the bright hues of the flower-fields, and the gently waving trees in the background made a scene so fair that one envied the lot of a Mitcham flower-farmer. But his cup is by no means without its dash of bitterness. Land in Surrey is becoming more valuable every year for building purposes, and, even as the American Red-skin has almost been crushed out of existence by the onward march of pale faced civilisation from East and West, so the Surrey herb-grower, season after season, sees his domain shrink by the encroachments of the omnivorous jerry builder. Already a row of mean yellow-brick villas had eaten deep into the field where we stood, and the herb grower had almost become reconciled to the idea that the operation of the law of the unearned increment would soon compel him to grow his herbs elsewhere. He was fortunate this season in having some of the best lavender in the county, but he was certain that the yield of essential oil would be an unusually poor one. And that is the same story we heard all round. What there is of the herb has little strength in it, and the fine weather has come too late to effect any improvement in this respect.

SNUFF AND MANURE.

"Snuff," a dreaded visitation of the plant, is not so general or so had this year as it was last season; but we came upon several traces of its existence during our progress. "Snuff" is a minute pest, apparently caused by an excess of moisture. It first attacks the lower leaves of the plant, which are the richest in oil, and gradually works its way upwards, strewing the leaves with an amorphous brown substance, whence it derives its name. The "snuff," when serious, affects the aroma of the oil; but, in any case, it destroys part of the leaves of the plant, and, as it is difficult to gather the fallen leaves from a field after harvest, much valuable distilling material is lost. The essential-oil herbs require a good deal of manuring, animal manure being almost exclusively used for that purpose in Mitcham. The proprietor of the lavender-field which we have just visited is making some

experiments with artificial manure, which have turned out highly satisfactory; but, on the whole, such innovations do not appear to be regarded with much favour. Another grower told us that the refuse of the Bradford woollen-mills was formerly much used as a manure for the peppermint plants.

THE "DARNED MOUNSEER."

Taking leave of the urbane proprietor whose fields we had hitherto visited, we next determined to strike out for the grounds of a foreign grower, known among his native colleagues as "Frenchy," and not generally regarded by them



DISCHARGING.

with particular favour. Tales of his queer doings, his outlandish ways of cultivation and harvesting, his want of proficiency in the Anglo-Saxon tongue, and the new fangled notions which he had thought fit to introduce into the work of distilling form a perennial source of merriment. But in spite of these untoward circumstances the Frenchman appears to have come to Mitcham to stay. He has been there now for some seven or eight seasons, and he is certainly as well known in the trade as any of his British competitors.

THE COCKNEY INVADER.

Our route into the French territories lay through a typical Surrey country lane of quiet and peaceful prettiness. "It is some satisfaction to know," said we, "that here at any rate remains a spot of undisturbed rural beauty."

This remark, innocent and commonplace though it seemed, immediately roused a demon of apparently uncontrollable passion within our gentle companion. It was difficult to realise that the savage could lie hidden so closely under the respectable exterior of our friend that the slightest scratch should suffice to rouse him. But the cause of the outburst soon became clear. "Peaceful rural beauty," hissed our companion, jerking his stick towards the roof of a distant building. "See that roof there? Not there—further along where the weather-vane is—Yes. That is a public-house which has recently changed hands, and the new proprietor" (with a forcible benediction upon that worthy's optics) "he advertises everywhere 'Country excursions to the lavender fields!' 'The heart of the lavender country!!' 'Lavender for miles around!!!' and so on—hang him! The result is that every summer Sunday a horde of cockney Bashi-Bazouks, with their female friends, come down upon us and make life a perfect plague here. They picnic about in the fields; they steal the lavender; they spoil the herb by walking through it; they leave paper and rubbish behind wherever they go, and we have been obliged to summons several of them for trespass and wilful damage before the magistrates! These excursions are becoming a mighty nuisance. It's all that house with the weather-vane that brings them here." "That weather-vane. Oh that weather-vane! The Lord deliver us from that weather-vane!" thought our man, paraphrasing an historic ejaculation; but he kept the thought unto himself.

"Rabbits are another nuisance," continued our companion when he had recovered his equanimity. "They positively swarm here, and they eat the lavender plants whenever they

get the chance. We are also compelled to have the fields watched nightly during the harvesting season, for there have been many organised attempts to steal herbs wholesale. Only the other day two men got three weeks each for such an offence."

ON FRENCH SOIL.

We had now reached a field which was pointed out to us as marking the outlying portion of the "Frenchy's" ground. M. Lelasseur, for that is the Frenchman's name, was not visible. Probably he was engaged in his distillery in the Mitcham Road, or perhaps he was the perpetrator of the partridge massacre of which the volleys reached us from afar. But though the *propriétaire* himself was absent, the field was not without a souvenir of sunny France, for yonder, at the foot of the ridge, stood one of those massive French country carts, such as you may see wearily drawn by oxen in a French harvest-field. This cart is the substantial butt at which the Surrey jokists are fond of hurling the barbed arrows of their wit. The cart was now being laden with mats of peppermint herb for the Frenchman's still, and looked massive enough to carry the whole crop from the field where we stood. But see—yonder is another reminder of the presence of the Gaul. A black shed, erected in the middle of the field, bears the legend in huge letters—

Centre des Cultures
de lavande et de menthe poivrée
John Jackson & Co.

These are some of the outlandish notions that account for "the Frenchy's" unpopularity. "Do in Rome as Romans do" has not been his watchword.

It must be admitted that the particular plot of land upon which we were standing was neither highly cultivated nor particularly productive. We understand that further down the French firm own much more flourishing, and probably more productive, ground, and it would, therefore, be altogether unjust to take the corner we examined as typical of the estate. Two plots were devoted here to cultures we had not noticed elsewhere—French lavender and rosemary. The French lavender-plants are about the same size as the English, but their leaves are of a steel grey instead of a green colour. When we returned from French soil our companion told us that, next to the British wholesale druggists and lozenge-makers, he considered the Germans the best customers of the English distillers. France and Italy were practically lost markets since the advent in Mitcham of the "darned Mounseer," who had played the deuce with their customers in that direction. The Russians still buy a lot, and pay good prices, too; but during the last few years the lozenge-making industry in the North of England has made great progress, and the lozenge-makers now supply Continental markets with the ready-made article, and thus the oil exports have been superseded to some extent. The best customers of all were a few large German wholesale firms, unsurpassed for straightforwardness and punctuality. As it is not often that one hears an English dealer belaud the Germans as model customers, we gladly place the exceptional fact upon record here.

ARCADIA.

We had now arrived at the end of our peregrinations in this "section," to use an expressive Americanism. Fresh woods and pastures new awaited us further on, and, as we mentally arranged our plans for the portion of our route yet unexplored, we rested awhile to bid adieu to the smiling fields around us.

Here was a perfect Arcadia. Behind us lay a thick clnster of trees—chestnuts, oaks, and pines, overtopping the undergrowth of lilae, hawthorn, and bramble, while at a little distance one solitary silver birch—the Lady of the Woods—rustled her ample foliage. To the left, in a small paddock, a few sleek, black-coated Suffolk cattle were peacefully grazing. At the other side the setting sun east his lengthening shadows over mint and lavender fields, with the brown figures of the labourers still busy garnering the harvest. The light played brightly upon a distant patch of snowy chamomiles, and increased the brilliancy of the few poppies which relieved it.

A rabbit started by our little black dog had made good its escape in the undergrowth. Birds warbled about us, and a

plodding slug had tracked its laborious path along the back of our friend's coat, hazarding even unto the crown of his chimney-pot hat, and soiling that garment of gentility with a streak of slimy silver. It was time to go. And so we struck out for Mitcham Junction and civilisation. Presently the outposts of the metropolis, in the shape of eligible building-plots occupied by dead cats and discarded boots, hove in sight, and the nervous hum of the telegraph wires supplanted the peaceful buzz of the bees.

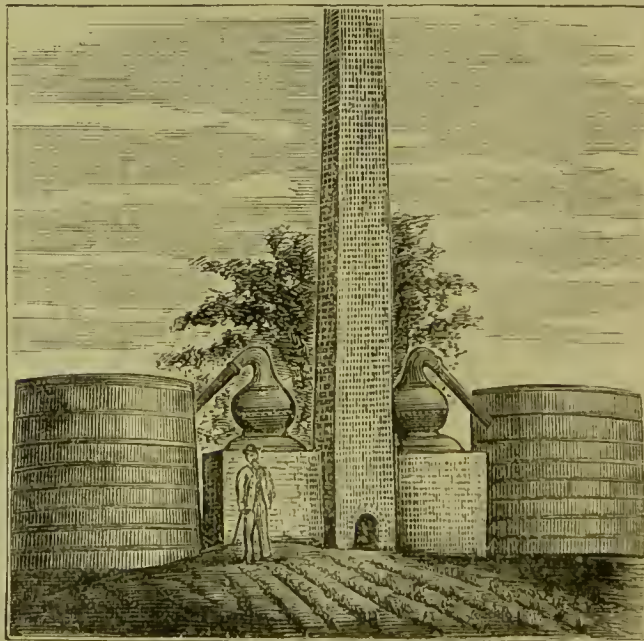
THE MILLERS.

Our next call was paid to Messrs. J. & G. Miller, who till several farms between Mitcham Junction and Waddon. There are several Millers in the herb-growing business. The aboriginal Miller hailed from Essex, where he wooed his maid, and became the progenitor of a numerous family, most of whom migrated into Surrey and applied their energies to market-gardening and flower-farming. They have always recognised the injunction of the great Manitou, that "all your strength is in your union, all your danger is in discord; therefore be at peace together, and as brothers live henceforward." In other words, they stick together through thick and thin, and that is one of the secrets of their success. The firm's "yard" is situated about half a mile from Mitcham Junction station, and there our man inquired for one of the partners from a country bumpkin who preceded him on the road. Without stopping, and looking neither to the left nor to the right, the bumpkin wagged his head in the direction of the field where the elder Mr. Miller stood, supervising the matting of the recently cut plant. Mr. Miller was positive about the failure of the peppermint crop, and handed us some figures he had prepared showing the result of this year's distillation as compared with last year's.

THE FIGURES.

In 1890 the first 34 stills of peppermint herb had yielded 240 lbs. 10 oz. oil; this season the same number had produced 170 lbs., a difference of 70 lbs. 10 oz., or nearly 30 per cent. One of Messrs. Miller's stills, having a capacity of 23 cwt., yielded in 1890 an average of 7 lbs. 1 oz. of peppermint oil per charge; this year the average had been 5 lbs. Even the 1890 yield was below the average, which would be fully 9 lbs. for a 23-cwt. still.

"At Wallington," Mr. Miller said, as he conducted us round his fields, "we have a 32-acre field under peppermint,



MILLER'S STILLS IN PROCESS OF ERECTION.

and that, I am sure, is the largest single area planted with mint this year in the kingdom. Most of the mint we grow is white mint, of which we are the largest producers in England, and we will also stand against all England in the matter of total area under mint, which is over 100 acres on

our four farms combined. We have challenged the world, in your journal, to prove that any of our oil has ever been tampered with before it left our hands, and offered 5,000*l.* reward to anyone who could prove that it had, but we haven't had a single application for the coin. Not one. How's that?"

Mildly expressing our admiration of the robust self-reliance which did not shrink from scattering challenges at large in this lordly way, we interpolated a question about lavender. No, they didn't grow much lavender, though they had a field or two. Of chamomiles they had 1½ acre this season, and that was more than half of the entire area in the county, though much less than in former years. In fact, chamomile was going out. While thus conversing we had approached a field at the end of which the vermilion-painted wings of a mowing and reaping machine were busy laying low the herb. Until three or four years ago no one in Mitcham thought of mowing herbs; they were all cut by hand. Since then, however, favoured by a succession of wet seasons, which caused the herb to grow to unusual height, the mowing-machine has become an established favourite with some of the growers. And very neatly and expeditiously it performs its task, at a cost of not more than 6*s.* or 7*s.* per acre, where hand-cutting would run to 20*s.* or 22*s.* The first year's mint cannot be cut by machine, as it is too low, and its growth generally too uneven. The field where we now watched the "reaper" at work was covered with a thick growth of two-year-old black mint. At a brisk pace the two sleek horses drew the smart machine along, each revolving vermilion-coloured wing throwing behind, with mathematical precision, as it reached its lowest point, a neat bunch of herb. So low did the wings approach the stubbles that most of the odd leaves—usually left as wastrels about the field—were seized with the bunch and thrown upon the little heap ready for gathering. Scores of frogs and insects, disturbed by the merciless destruction of their shelter, leapt, crawled, or hopped athwart our path as we followed the reaper, in the trail of which a cloud of dust was whirled about as it mowed its way along on the straightest of lines. When the end of the field was reached the back of the reaper was covered with a brown deposit. That powder was the "snuff," of which other informants had already told the doleful tale. This field had caught the infection badly, but fortunately the herb would be harvested before the pest had wrought its full extent of damage.

THE LAST STILL-HOUSE.

Then we neared the new still-house of the brothers

Miller. The stills were the relics of one of the most famous house of herb-growers ever known in the district, now extinct, after several generations of never-questioned paramount chieftainship of the trade. A too pronounced addiction to the seductions of woman, wine, and song had laid this famous peppermint dynasty low, and their stills, "the oldest in the county of Surrey," as Mr. Miller observed, again indulging in his favourite mood of confident assertion and general challenging, had been secured at auction by the twin brethren. The biggest of the two stills holds 1,500 gallons, and, if not working for the firm, they are let out to still-less growers at fees of 23*s.* and 30*s.* per charge, respectively. In the manufacture of the large still about 3½ tons of the finest copper and 2½ tons of tin were used. The tin was believed to contain a large admixture of silver, and when the stills were transported to their present location a local dealer offered to buy the old worm of the larger one, replace it by a new one, and give 50*l.* into the bargain. This variation on the old scheme of exchanging new lamps for old ones was, however, declined by the brothers. The larger still was charged with herb, now nearly exhausted, and an examination of the receiver revealed a layer of 1½ inches of oil upon the surface. It had taken three hours' distilling to produce this result, another demonstration of the poverty of the essential-oil glands this season. The aroma of newly-drawn peppermint oil is by no means a pleasant one. To our man it was most disagreeably suggestive of the tan-coloured cod-liver oil of the days of his boyhood, and he beat a hasty retreat. The characteristic peppermint aroma develops but slowly, say after an interval of several weeks. In Messrs. Miller's stills the waters of condensation and distillation are not run to waste, but are used over again several times, though it has been impossible to ascertain whether any oil is recovered from them. This still-house is the only one in the district possessing a brick-built chimney-shaft, which carries the odour of the operations well up into the air. The herb-stills are generally voted a nuisance by the surrounding residents, and it is found impracticable to build houses of a superior kind in their immediate neighbourhood. So strong is the prejudice against them that one of the Waddon still-houses will be dismantled and the plant sold at the close of this season, to enhance the value of the neighbouring property.

Next season the Miller firm propose to eclipse their present achievements by planting a fifty-acre field with black mint, thereby further establishing their coveted supremacy as the champion growers.



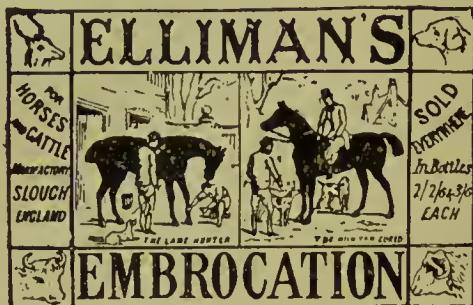
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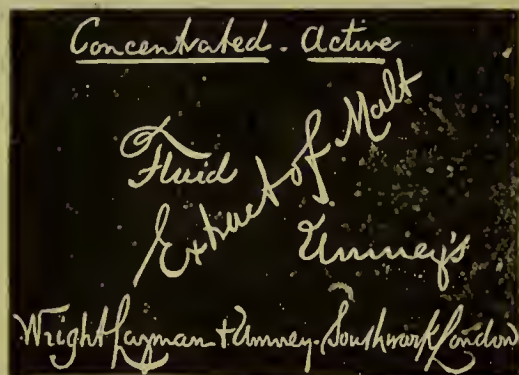
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MITCHAM CROP PROSPECTS.

OUR representative, who has been making the round of the
Mitcham district, and whose report we print elsewhere, has
had an opportunity of convincing himself of the correctness
of the reports that all the herb crops in that centre would
fall below the average this year. Agriculturists are pro-
verbial grumblers, and their forecasts have never been known
to err in the direction of optimism, but, without altogether
endorsing the view, which we heard freely expressed, that
this season's herb crops would be the smallest for twenty
years, we have seen enough to enable us to state as a fact

A Copy of this Supplement is inserted in every number issued of "The Chemist & Druggist."

The Chemist and Druggist

SUPPLEMENT

Businesses Wanted.
Businesses for Disposal.
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SATURDAY, SEPT. 12, 1891.

Partnerships.
Situations Vacant.
Situations Wanted.
Miscellaneous.

This Supplement will be given free to any Chemist and Druggist or Assistant who will call for it at 42 Cannon Street on Friday afternoon, or will be posted on Fridays to any one who sends an addressed postal wrapper.

ADVERTISEMENTS for this Supplement can be received on FRIDAY MORNING, first post, though it is requested that these may be sent in as early in the week as possible.

EXCHANGE COLUMN ADVERTISEMENTS will appear on page 10 (bottom folio), and must be received not later than THURSDAY AT NOON, to appear in the next issue.

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BUSINESSES FOR DISPOSAL—Continued.

DRUG and Drysaltery Business; old established; good position, large town; handsome well-fitted shop, superior house, excellent business premises; no goodwill asked; reasonable offer accepted; rent £60. Apply, Jas. Shilton, Ablewell Street, Walsall.

£200.—Genuine cash Retail and Prescribing Business, in increasing populated district in Kent; no opposition; returns about £300, can be greatly increased; good profits; rent £20 inclusive. "Chemist," 67 High Street, Ramsgate.

LANCASHIRE.—For disposal, old established Business in most central position, with excellent rooms in connection for Dentistry; now sub-let for that purpose to a Dentist; stock, fixtures, &c., at valuation. "Bicnspid," c/o Messrs. Evans, Sons & Co., Wholesale Druggists, Liverpool.

£1,000.—London, attractive suburb; first-class Retail and Dispensing; good profits and steadily increasing returns; central position; low rent; returns £1,200; particulars on receipt of reference; principals only. "Pharmacist," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

£360.—In small market town, a thoroughly sound Retail, Dispensing, Prescribing Business (nearly all cash), with Agency; returns nearly £600; excellent agricultural neighbourhood, with many villages round; large house, low rent; good business premises. Apply, "Diomid," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

£250.—For immediate disposal, owing to ill-health; situate in the West Midlands; an old-established Dispensing, Retail, and Agricultural Business, capable of extension by personal supervision and attention, situated in the centre of a principal market town. For further particulars address, "Major," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

NOTTINGHAM.—General Retail and Dispensing Business; excellent Dental (extraction) connection, several profitable proprietaries; good corner position; 2 windows; nicely fitted; rent £35; fullest investigation; serious illness sole cause of disposal; average till £700, has taken £1,050; price £250 to effect quick sale. W., c/o Wyleys & Co., Wholesale Chemists, Birmingham.

£2,400 RETURNS.—Well-known and old-established good-class Retail and Dispensing, in commanding position of large Lancashire town; satisfactory reason for sale and good introduction given; goodwill and valuation about £2,000; this business can be much increased, and is well suited for two. Further particulars can be had by applying, with reference, to F. J. Brett, Valuer, 60 St. Stephen's Road, Leicester.

MIDLANDS.—A genuine Retail and Prescribing Business; old-established; double-fronted shop in main street of small town with several villages round; 6-roomed house; side and garden entrance, fine garden; rent and taxes £21; returns £420; half profit; good scope for extension; introduction given; price £250. H. Steer, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

A MODERN well fitted and stocked Shop, in a nice residential and growing neighbourhood; capable of great improvement; valuable lease, 19 years to run, at £40; could easily let off nearly all the rent; good 10-roomed house and garden; furniture can be sold also; returns nearly £300; price about cost of stock and fixtures. Apply, W. L., c/o The CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TO Chemists and Druggists.—An old-established Shop to Let, in one of the most rapidly improving suburbs; excellent position; no opposition; a capital opportunity for a young man commencing business; low rent. For further particulars, apply Edwards, 44 Assary Road, Old Kent Road, E.R.

SITUATIONS WANTED—Continued.

LOCUM, day or evening, from 2/6; qualified; abstainer. H., 258 Sbirland Road, W.

JUNIOR; London; outdoors; qualified; time for reading. "Statim," 44 Orford Road, Ealing.

LOCUM-TENENS; qualified; disengaged; experienced. "Esculap," 32 Laurel Grove, Penge.

WANTED. Part-time situation, or Dispenser to Surgeon; disengaged. B. L., 344 City Road, E.C.

JUNIOR (21); 6 ft.; Indoors; Extractor; London preferred. McFadden, 94 Harrow Road, Paddington.

JUNIOR; qualified; aged 22; good references; disengaged. W. Owen, Glanbeuno, Dwyran, Anglesea.

MANCHESTER or District; Junior; aged 21; 8 years' experience Roper, Eccles Pharmacy, Eccles.

MANAGER or Senior (25); qualified; good town and country experience. Blaensalith Farm, Cardigan.

ASSISTANT or Manager; 25; qualified. 22/18, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LOCUM-TENENS; qualified; experienced; disengaged September 21. Williams, 49 Arthur Road, Holloway, N.

ASSISTANT; aged 25; highest references; 12 years' experience; Single. 74 Cumberland Road, Southsea.

EVENING employment wanted by student at the Square from October 1st. Rose, 38 George Street, Croydon.

PHARMACEUTICAL Chemist; Manager or Senior; middle September; excellent references. R. Tocher, Peterhead.

TEMPORARY; experienced; can manage; disengaged September 23. "Assistant," care of Spargo, Chemist, Lowestoft.

LOCUM-TENENS during absence; long experienced; gentlemanly address; country. "Ph. Ch.," 39 Powis Square, W.

LOCUM-TENENS, Temporary Manager; qualified; experienced; references. "Drug," 54 Hereford Street, Sheffield.

MANAGER or Senior; all-round man; aged 34; good reference; disengaged; liberal salary; Minor. Evans & Co., Liverpool.

MANAGER or Temporary; Minor qualification; married; aged 36; 19 years' experience. B., 93 Kingston Road, South Wimbledon.

FOREIGN Assistant (Austrian), qualified; aged 25; speaks German, French, and English; good references. O. K., 76 New Bond Street.

JUNIOR or Dispenser (20); in or out doors; London or suburbs; 4 years' experience. "Junior," care of Hornby, Chemist, Richmond.

MINOR; aged 32; 8 years' first-class City and West-end experience. X. S., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LOCUM-TENENS or Branch Manager; Family, Mixed, or Agricultural business; registered. P. D. S., 17 Trinity Street, Nottingham.

ONE or two evenings a week during winter session; experienced. T. B., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

OCTOBER.—Assistant in good-class business; aged 30; experienced; highest references. "X.," Birnam, St. Paul's Road, Bournemouth.

MANAGER, Locum-Tenens, or Dispenser; aged 35; qualified. "Chemist," care of Donald & Co., Chemists, Watlington Street, Chester.

AS country Branch Manager; good Prescriber; varied experience; registered; middle aged. "Curator," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ASSISTANT, unqualified, accustomed to London Stores routine, desires re-engagement; quick Dispenser; highest testimonials; aged 26. 66 Chestnut Avenue, Forest Gate.

AUSTRALIA or Colonies.—Wanted, situation in any capacity; 9 years' varied experience; aged 24. "Drugs," 13/25, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

AS Manager, Head of Department, or Hospital Dispenser; Minor qualification; 34 years of age; married; permanent (outdoors) situation required; 19 years' good Dispensing and varied experience; first-class testimonials. "Post," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

EVENING employment (outdoors). Jones, 3 Rochester Place, Camden Town, N.W.

PART-TIME Assistant, or as Dispenser to Surgeon; West of London outdoors. Address, 21/24, Office of THE CHEMIST AND DRUGGIST 42 Cannon Street, E.C.

AS Senior Assistant or Manager; Major; aged 25; Scotch; 10 years' experience highest class retail. 20/32, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LOCUM-TENENS and Temporary Manager; qualified; steady and reliable; highest references; disengaged September 21. "Locum," 116 Abbey Street, Nuneaton, Warwick.

DISPENSING Assistant.—A good Dispenser, disengaged till 1 P.M., after 6 P.M.; 15 years' experience; highest references. Apply T. C., c/o Dr. S. C. Griffith, 101 London Wall, E.C.

MANAGER or Senior.—A gentleman of experience, qualified, married, of good address, seeks an engagement; excellent references; permanency. Parkinson, 45 Maida Vale, W.

ACHEMIST, of 23 years' standing, fully qualified by examination, seeks an appointment as Traveller; exceptional references. J. J. B., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

COLONIES or INDIA.—Qualified Assistant desires situation; 4 years' Eastern experience; aged 27; highest references given. Apply, "Scot," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

GENTLEMAN requires re-engagement as Country Traveller, with good Perfumery and Fancy Soap house or Toilet snaddies; good connection in Eastern Counties, Midlands, and South Coast. Address, "Perfumery," Roberts' Library, 110 Brompton Road S.W.

MANAGERSHIP or Partnership desired, in select London or South Coast business, by a provincial Chemist, with high-class London experience; can introduce a specialty turning over nearly £500 a year; communications treated confidentially. L. A., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MISCELLANEOUS.

Special charges are made for Advertisements under this heading which can be obtained on application.

FIRMS issuing Retail Price Lists are invited to send specimen copy and price per page for advertisements to Sanderson & Co., Ling Linotus Laboratory, Preston, Lancashire.

GENTLEMAN (at present in London) from South Africa is open to accept Commissions of any kind connected with Drug Trade; returning soon. Apply sharp, X. Y. Z., care of Burgoyne, Burbioges, Cyriax & Faries, London.

CHEMIST doing a good-class trade in a provincial town would like to make arrangements with a good surgical instrument house to sell on commission and hold a small stock of instruments and appliances in general use; references to the best London houses. "Instruments," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

DENTISTRY.—A qualified Dentist, having a staff and all modern appliances at hand, is willing to undertake the mechanical work of one or two Dentists on very moderate terms; instruction given in operation and mechanical dentistry. Address, "Dens," care of Mr Carter, Marina, Ramsgate.

TO Wholesale Druggists and allied trades.—A gentleman of considerable experience, with good connection, travelling in Ireland for several years, representing a leading house in the Drug trade, is willing to accept two or three commissions from first-class houses; Drugs, Perfumery, Druggists' Sundries, &c.; good references. Address, 115/57, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

AGENTS WANTED, who are not represented, to SELL the "SPRING BLOSSOM"; sells retail at 1s. 10d., 2s. 4d., and 2s. 10d., in tin canisters and lead packets. Also the "HONEY-SUCKLE" and "GOLDEN TIP" blends of Ceylon Tea; profit 25 per cent. in the retailer; sells retail at 1s. 10d. and 2s. 4d. per lb. in lead packets. Also the "ROYAL TEA" Brand; sells retail at 1s. 10d. per lb. Set of specimen 1/2 lbs., with terms, post free for 2s. stamps. Address, Cave, Johnson & Co., 8 Linc Street, London, E.C.

PRELIMINARY AND MINOR.

STUDENTS! If you wish to prepare for Examination easily and thoroughly, without leaving business or expending time and money on "correspondence systems" (?), write to Mr. Filtness, Chemist, Crowhorn Cross, Tunbridge Wells, for "How to Prepare for Exam.," gratis and post free. Success guaranteed. No Fee.

SITUATIONS OPEN—Continued.

AN Assistant, about 22 or 23 years old, with Minor qualification Apply to Glaisyer & Kemp, Brighton.

MANAGER for a Branch business; one with view to purchase preferred. W. Wyles, 104 Margate Street, Dover.

WANTED, Temporary Assistant; qualified; at once. Full particulars with references, H. Wood, Chemist, Walmers.

WANTED, a Junior Assistant, outdoors. Apply, giving full particulars, to D. P. Roberts, Drug and Chemical, North End, Croydon.

AN Assistant, who has passed Minor examination and had good Dispensing experience. Apply, stating age, salary, references, &c., to Young & Co., Ramsgate.

A. THOMPSON, Pharmaceutical Chemist, Putney, S.W., requires a smart Counterman as Senior Assistant for a high class cash business; good salary (indoors).

IMPROVER, end of September; state experience, age, height, salary required, &c., and enclose carte; easy hours; no Sunday duty. Smart, High Street, Steyning, Sussex.

JUNIOR Assistant wanted; outdoors; must have good references. State full particulars, age, height, and salary required, Markham & Co., Market Place, Darlington.

WANTED, at once, an energetic Assistant, about £2; must have good references. Apply, stating age, height, salary required, and photo to Ashford, Northampton.

WANTED, by end of September a competent Assistant for light Retail; about 23. State experience, height, reference, and salary required, enclose photo, J. Marson & Son, Stafford.

JUNIOR Assistant, with some knowledge of postal work preferred, in Light Retail and Dispensing business; leisure given for study if required. Davey, 6 Townshead Road, Regent's Park, N.W.

ASSISTANT (indoors) for good class Country trade; hours 8 to 8, Saturday 8 to 9.30, close at 2 P.M. on Thursdays, no Sunday duty. Apply, stating age, height, and salary expected, to Chalmers & Son, Newport, Salop.

WANTED, at once, a smart, active Junior (indoors); must be obliging and industrious; time for study if desired. Apply, with usual particulars, and enclose carte, to R. Eanbury, 393 Walworth Road, London, S.E.

AN energetic Assistant, to take charge of small Branch, as Manager; light trade and no heavy; no Sunday duty. State experience, references, and salary required, and enclose photo, returnable, to Owles & Son, Dispensing Chemists, 9 Quay, Yarmouth.

OUTDOOR Assistant wanted, well up in Dispensing and General Counter work; no Sunday duty; qualified preferred. Apply, stating salary and usual particulars, and enclose carte, W. T. Hicks, Pharmaceutical Chemist, 28 Duke Street, Cardiff.

WANTED, an Assistant (indoors); one seeking a permanency preferred; one afternoon a week off at 1.30; no Sunday duty. Address, giving age, reference, and salary required, and enclose photo, if convenient, to J. Day, Chemist, South Town, Dewsbury.

LABORATORY.—Wanted, by a London firm of Manufacturing Chemists, a bright young fellow, to superintend pharmaceutical department; salary to commence £80. Address, with full particulars, "Pluto," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, active Junior (outdoors), about 20, for pushing Retail Business; must be quick and reliable, and a good counterman. Apply, stating age, height, experience, reference and salary required, enclosing photo, to J. & J. Thompson & Co., Limited, 192 Manchester Street, Oldham.

WANTED, for October 1, pushing and active Indoor Assistant for branch; good tooth-extractor; all the better if understands vulcanite work, but not essential. Apply, stating age, references, salary required, and full particulars, to W. Aspinall, Chemist, 109 Scholes, Wigan.

WANTED, competent trustworthy Assistant, capable of managing small dispensing and light retail business; one who can prescribe and extract; not under 25; indoors; comfortable, easy birth; hours 8 to 8, no Sunday duties. Apply, with full particulars of experience, salary, &c., with photo, Coles, Bournemouth.

WANTED, for a Dublin Manufacturing Medical Hall (Wholesale), a competent man as Manager, who will take upon himself the entire management; must understand the value of drugs and the buying of same, and be able to introduce new things into the business; the business is an old-established one, but requires looking after; reasonable salary will be paid to commence, and arrangements might be made to increase as the business develops. 117/58, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, immediately, a good Junior Assistant, not under 20 years; indoors; light trade; time for study. Apply, stating previous experience, references salary required, enclosing card, to W. Jacob, Medical Hall, Guildford, Surrey.

WANTED, an energetic qualified Manager for branch, in a busy thoroughfare; handsomely fitted shop; unlimited scope for business; must be a good tooth extractor, and do minor dentistry. Apply to J. W. Feltwell, 91 Hammer Smith Road, West Kensington, W.

WANTED, a good Junior Assistant; indoors; quick, steady, and obliging; one accustomed to a Mixed Austrian Retail Drug business. Apply, with references, stating salary required, to "Eastern Counties," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

A CHEMIST, Postmaster, and Stationer, in a small country town, requires assistance (outdoors), must be able to give general and willing help where required; state references, and salary required. Swau, c/o Messrs. Evans, Lescher & Webb, 60 Bartholomew Close, E.C.

QUALIFIED Assistant wanted, competent, active, and experienced; married preferred. State age, salary required (outdoors), when disengaged, and other necessary particulars, and enclose photo, to be returned, Southern Drug Company (Limited), 152 High Street, Southampton.

WANTED, qualified Assistant (outdoors) for brisk business on store lines in Midland town; soon made manager if competent; full half holiday weekly; state full particulars, age, salary, experience, and when disengaged. Address, J. X., c/o Mitchell & Co., 12 and 13 Red Lion Court, Fleet Street, E.C.

TRAVELLERS and Agents wanted for the justly-celebrated Burdock Bitters; good commission to Travellers; sure fortune to Agents; a boon to the public; increasing the beneficial effects arising from the occasional use of alcohol, and preventing the evils resulting from excess; Chemists sell Burdock Bitters readily. Burdock Bitters Company, New Cross, London.

WANTED, good Sealer, qualified or not; general Agricultural business; good prescriber and dispenser, and accustomed to country trade, and capable of directing and taking charge, whose character will bear strict investigation; partially outdoors; two assistants, prater, and boy. Address, "Rhus," Hodgkinsons, 193 Upper Whitecross Street, London.

FOR PARIS.—Wanted, a competent Assistant, not under 23 for one of the largest English houses; preference given to a qualified man speaking French, and who has had good Continental experience. Address, with full particulars, to A. M. Z., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C. Letters not answered in three days may be considered to be declined.

ASSISTANT FOR JAPAN: unmarried; engagement for 5 years; must be a thorough good business man, have the Minor qualification, speak French fluently, and be able to attend to books; board and lodging provided, and second-class passage out in one of the P. and O. steamers; unexceptional references are required. For further particulars, apply to S. Maw, Son & Thompson, 7 to 12 Aldersgate Street, London.

SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

PART-TIME or Loom; experienced. K., 2 Abbey Road, West Ham, E.

EVENING engagement; Junior; in or near City. W. R., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MANAGER or Assistant; at liberty. P., 64 Bank Street, Morley, near Leeds.

ASSISTANT (24); 8 years' experience; 5 ft. 8 in. B., 11 Eastfield Road, Louth, Lincs.

TO SURGEONS.—Dispenser, or care of Retail; 14 years' experience. T., 320 Uxbridge Road, W.

ASSISTANT; aged 30; single; Irish qualification. Slattery, Main Street, Kilmallock, Co. Limerick.

PART-TIME; London; with Surgeon or Chemist; 6 years' experience. C. C., 319 Romford Road, E.

LOOM TENENS; disengaged; Major; fluent French. Fuller, 83 Brigstock Road, Thornton Heath.

ASSISTANT; aged 25; Minor; height 5 ft. 9 in.; open October 5th. Hepworth, Glaisyer & Kemp, Brighton.

ASSISTANT: town; outdoors preferred; 10 years' experience. "Alpha," 41 Trinity Square, London.

PART-TIME; Manchester or Liverpool; disengaged; tooth extractor; references; aged 24. Wilkinson, c/o Jackson, Liverpool, Blackpool.

BUSINESSES FOR DISPOSAL—Continued.

£1.150—For disposal, a very old established Chemist's Business in a good market town in Yorkshire; large double-fronted shop, well fitted in machinery; several good proprietary articles; net profit last year over £100; good roomy house, rent £65, or could be sold if required; owner leaving the trade; premises well adapted for doing a bigger trade; suitable for pushing chemist or drug stores. Address, K. L., Office of THE CHEMIST AND DRUGGIST, 42 Cannon St., E.O.

BUSINESSES WANTED.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

GENERAL Light Retail: returns not less than £500; locality immaterial. Stanley White, Budleigh, Salterton, Devon.

WANTED, a genuine Retail, Dispensing, and Prescribing business; returns about £1,500 or more. Address, with full particulars, in confidence, "Nett," c/o Messrs. Evans, Lescher & Webb, 60 Bartholomew Close, London.

WANTED, a good Mixed Country business, with stationery preferred; unopposed; income from £300 to £500; all communications treated with the strictest confidence. H. P. S., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, a high-class Chemist's Business, doing about £2,000, or a Partnership would be entertained in a larger concern, wholesale or retail; country not objected to. Apply, "First Class," Box 809, Willing's Advertising Offices, 125 Strand.

WANTED to purchase, by weekly or monthly cash instalments, a small Prescribing and Retail Business, within 20 miles from London preferred; or advertiser would take entire charge of same, with view of early purchase. "Chemist," 23 Florence Road, London, S.E.

FOR SALE.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

FOR SALE, 13 doz. good second-hand shop-rounds, 81s. 6d.; 5-ft. mirror-centre dispensing-screen on counter, with glass casing in front, second hand, £7 10s.; pill machine, 12s.; 2 5-gall. carboys, 20s.; 2 3-gall. ditto, 12s.; 12-ft. range new pine drawers, gold labels, glass knobs, £6 12s.; 12-ft. range mahogany ditto, glass labels, £9; 2 7-gall. ditto, 17s. 6d. each; 6-ft. dispensing screen, mirror centre, £6; 8-ft. ebonised wall-case, £9; 4-ft. second-hand mahogany ditto, £6; 3-ft. sloping counter-case, mirror lined, second hand, 30s.; 24 4-lb. best pink jars, labelled, 5s. each. R. Tomlinson & Sons, Medical Fitters and Valuers, Bond Street, Birmingham.

TO LET.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

TO LET, at Michaelmas next, House and Shop, now and for last three years occupied by Chemist; situate in a busy and main thoroughfare in Notting Hill; rent £60 per annum. Apply to T., care of Housekeeper, 32 Bedford Row, W.O. No agents.

APPRENTICESHIPS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

A WELL-EDUCATED youth as an Apprentice; outdoors preferred. Apply, "Porter," Chemist, Hebden Bridge, nr. Manchester.

APPRENTICE.—Messrs. J. Olbbs & Son, Pharmaceutical and Dispensing Chemists, Eastbourne, will have at the end of October a vacancy for an Apprentice; one who has passed the Preliminary or its equivalent.

A WELL-EDUCATED youth as an Apprentice in a good-class business in the north of London; must have passed the first examination or its equivalent; moderate premium required; or an Improver would be treated with. Reply to "Uno," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

AN Assistant, with Minor qualification, and accustomed to a good-class Retail and Prescribing business. Apply to Pooley, Wimbledon.

WANTED, at once, Junior Assistant for a Retail and Dispensing business. Apply, J. Squire, 121 Cornwall Road, Bayswater, W.

MANAGER, for a business in a country town. Apply, stating age, reference, and salary required, and photo, if convenient, to Atkinson, Much Wenlock.

IMMEDIATELY.—Qualified Assistant, as Dispenser; outdoors; salary £90. State age, height, salary, previous engagement, and enclose photo, S. Wand, Chemist, Leicester.

AN Evening Dispenser wanted; 6 till 10 o'clock; terms, 12s. 6d. a week and supper. Apply, 12 Oraven Hill Gardens, Hyde Park, any evening (except Thursday), between 8 and 10 o'clock.

WANTED, in a Mixed Country business, Assistant, with knowledge of the Grocery trade, to manage for a fortnight; liberal terms. Clerke, Husbands Bosworth, near Rugby.

OUTDOOR Assistant wanted, for General Light Retail; must be a smart counterman, and have good references; work and hours easy. Particulars to Ward, Chemist, Whitby.

A COMPETENT Assistant, accustomed to Dispensing and Middle-class Retail. Address, stating age, references, and salary required (indoors), J. Fawcett, New Ferry, Birkenhead.

ASSISTANT wanted for Retail Counter; must be good salesman; aged about 25; leading West-end thoroughfare. Apply, by letter only, R. W. D., 11 St. Andrew Street, Holborn.

WANTED, a qualified Assistant, to take management of department. Apply, firstly by letter, giving full particulars, to Manager, The London Supply Stores, George Street, Richmond, Surrey.

A BROAD.—Wanted, an Assistant, with Minor qualification; aged about 25; one with some knowledge of accounts preferred. Apply by letter, giving full particulars, L., 14 Bunhill Row, London, E.C.

A QUALIFIED Assistant, for a Light Retail and Prescribing business; outdoors. Apply, stating height, salary required, experience, enclose photo (to be returned), "Chemist," 20 Trinity Square, Gernsey.

TO Dispensers.—Wanted, at once, a qualified man (outdoors); short hours; no Sunday duty. Apply by letter, stating age, experience, and salary required, to D. V. V., 136 Queen Victoria Street, London, E.C.

WANTED, early in October, a competent Assistant, accustomed to a Country trade; must have unexceptionable references and know Welsh. Address, Y. Z., care of Messrs. Evans, Sons & Co., Hanover Street, Liverpool.

JUNIOR Improver, for Sunderland, wanted for 21st October, or thereabout, for a couple of months (one capable of taking charge). State particulars to X. Y. Z., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

R. JEFFREY & SON, Pittville, Cheltenham, have an immediate vacancy for a good all-round Assistant; aged about 24; one only kept; abstainer preferred; please state usual particulars; if not answered in three days declined.

JUNIOR Assistant wanted, early in October, of good general experience, for good-class Dispensing and Family Retail. Apply, stating age, experience, salary (in or outdoors), enclosing carte (to be returned), "Chemist," 11 Rose Crescent, Cambridge.

JUNIOR Assistant or Improver wanted, outdoors; must be sharp, obliging, and have good references. State salary required, experience, &c., also vacancy for outdoor Apprentice. Oxford Drug Company (Limited), Dispensing Chemists, Oxford.

BRIGHTON.—Junior, about 22, thoroughly steady, and accustomed to a good-class Retail and Dispensing business; abstainer; a weekly half-holiday given. Address, with usual particulars and photo, if possible, to Mr. Vizor, 154 Marino Parade, Brighton.

TRAVELLERS wanted, with good connection amongst Chemists and Druggists, for two recent inventions; good commission. Apply by letter, to Benle, Nesbitt & Brothers, Townsend Street, Belfast; or to Box 799, Willing's Advertising Offices, 125 Strand.

TRAVELLERS on Commission.—Those engaged on the road who have influence in procuring orders for preparations which are selling largely, and well advertised, are invited to apply to "Enterprise," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, for South America, a working Chemist, with a practical knowledge of the manufacture of glue, gelatine, &c.; one who speaks Spanish preferred; salary £300 per annum. Apply, stating age, qualifications, &c., to P. B., care of Street's, Cornhill, London.

TULLY'S method of preparation is without equal; send for particulars.
 Knotty Points in Latin Grammar, 1s. 6d.; Caesar Simplified, 1s.;
 Metro System Simplified, 1s.; How to Write an Essay, 3d.; Equations
 Simplified, 1s.; Student's Herbarium, 100 specimens, 7s. 6d., post free.
 Mr. J. Tully (Hill's Prizeman), Chemist, Hastings.

JOHN GOWER, Publisher, 4 Lancing Road, Ealing, London.

OFFICES: 42 CANNON STREET, LONDON, E.C.

Published at the Offices of "The Chemist and Druggist,"
LONDON AND MELBOURNE.

If you have no surplus stock to Advertise just now, keep this Form for future use.

that it will fall considerably below the average. The peppermint crop may, perhaps, yield 75 per cent. of last season's output, which was already somewhat below the average in quantity, although the oil was unusually fine; but the lavender crop will be one of the shortest ever harvested, and a few Winchesters of chamomile oil will practically represent the entire product of the Mitcham industry this season. So far as peppermint is concerned, the deficiency in the crop will turn out to be, perhaps, rather a good thing for the cultivators, for the price of the oil is already considerably in excess of the highest point reached last season; and, while it is believed that the old stocks of oil are light, the new crop will be almost wholly in the hands of a few growers who can afford to keep it. The lavender produce also will be held by a few owners, and it is not unlikely that they will be able to obtain prices for it which, next season, will give a much-needed fillip to this culture, and induce the herb-farmers to increase their acreage under this crop to a considerable extent. The lavender herb appears to have suffered even more from adverse climatic conditions than the peppermint plant. Only one or two fields show a fair crop, but the bulk is very much blighted.

It is not only in Surrey that the lavender crop is unusually poor; but from other parts of the country where the herb is grown, and especially from Hitchin, which ranks next in importance to Mitcham, comes the same tale. The figures comparing the result of the distillation of peppermint oil during the present season with those of 1890, which we quote in our Mitcham report, have since been corroborated by the books of another distiller, showing that from an equal area under peppermint cultivation he obtained in 1889 500 lbs., and in 1890 420 lbs. of this oil. The same acreage is estimated to produce only 300 lbs. of oil this season. The distilling season has opened nearly four weeks later than usual this year. Mitcham fair takes place on August 12, and on that date distilling is expected, as a matter of course, to be in full swing. But this season many stills had not started at the beginning of September.

The decline of the Mitcham herb culture may be estimated from the fact that this season's peppermint acreage does not attain one-tenth of the average extent of ground cultivated with the same crop ten years ago. It is quite likely that next year and the year after that a considerable extension of planting may take place, especially if oil prices should rule high throughout the winter; but it almost appears as if the herb culture in Mitcham were doomed to extinction within a measurable span of years. With all its advantages of soil and climate, it is questionable whether the Mitcham district is not too near to the metropolitan area to remain a suitable ground for purely agricultural operations other than market gardening. There can be little doubt, however, that if, under conditions holding out the hope of an adequate remuneration to the grower, experiments in lavender and peppermint cultivation were made in other parts of the country, such experiments would be successful. English peppermint and English lavender are too firmly established in popular favour to allow of their culture becoming altogether unremunerative.

INLAND REVENUE STATISTICS.

THE report of the Board of Inland Revenue, which has just appeared, furnishes, as usual, some interesting facts. That fraction of the national revenue which is contributed specially by, or at least through, chemists and druggists is but a small proportion of the vast sum collected by the Somerset House establishment, but it represents branches

of trade which are of importance otherwise than financially. The gross total receipts accounted for by the Board of Inland Revenue in the year ending March 31, 1891, amounted to 65,702,113/. The chemists' share of this is, perhaps, one million in spirit-duties and in property and income tax, and perhaps nearly another half-million in various stamps, licences, and duties.

The sum realised by patent-medicine stamps in the year was 225,701/, which is again a record figure, though the advance is not so marked as in some previous years. The following table shows the amount realised by this tax during the past ten years:—

Year	£
1882	144,884
1883	154,439
1884	158,902
1885	169,968
1886	178,719
1887	179,508
1888	191,475
1889	202,375
1890	217,264
1891	225,701

The number of licences for the sale of patent medicines has increased remarkably. In the previous year the total number granted in Great Britain was 22,903, of which 21,229 were issued in England and Wales, and 1,674 in Scotland. Last year the total number issued was 27,295, England and Wales taking 25,257, and Scotland 2,038. The increase is, no doubt, principally due to the new regulation requiring a distinct licence to be taken for every set of premises where dutiable medicines are sold. The fact that there are in Great Britain over 27,000 "sets of premises" where such goods are sold is notable. It would seem to show that chemists sell less than half of the total consumption of these articles.

There are 24 licensed makers of methylated spirits in the United Kingdom, and 10,313 retailers, and 966 chemists are licensed to use stills. The respective numbers licensed a year previously were 20, 9,754, and 908.

The quantity of spirits received for methylation increased from 3,188,306 gallons to 3,450,890 gallons in the year. The Laboratory department examined during the year 820 samples of naphtha submitted to be used for methylation, and of these 54 samples, representing 13,246 gallons, were rejected as being too sweet. The demand of methylated-spirit users for a purer article, we are told, "cannot be allowed with safety to the revenue."

The figures regarding the income-tax are too extensive for us to deal with here; but we may mention that, while the assessments on "trades and professions" in England shows an increase of 4.87 per cent. in the year, those on "profits of public companies" show an advance of 26.43 per cent., a fact which strikingly indicates the drift of modern methods of business.

Turning, lastly, to the report by the Principal of the Somerset House Laboratory, we find the work done in that institution is increasing in all directions. The chemists there examined during the year, in all, 48,426 samples, which is 1,246 more than in the previous year, and the greatest number yet recorded. One special cause of the increase of business is stated to be "the growth of the export trade in medicinal tinctures." We understand the line "tinctures" in the Laboratory table to refer to this very important concession which the Board has made to British druggists. It shows that considerable benefit must have accrued to the drug trade here by the arrangement. In 1888 the number of samples of tinctures tested reached 662, in 1889 it increased to 1,643, and in 1890 it totalled 2,947. Sixty-eight samples were referred to the Laboratory during the

year under the Sale of Food and Drugs Act. This is considerably above the average. The samples were of milk, butter-milk, butter, lard, vinegar, coffee, and carbolic acid. In a large majority of the cases the Laboratory confirmed the conclusions of the public analyst, but nothing of any particular chemical interest is reported. Lime-juice and lemon-juice examined for the Board of Trade have been found remarkably good during the year. Only 3 out of 499 samples were rejected. The great bulk of the work done by the Inland Revenue Chemists consists in testing tobacco, beer, spirits, &c., for revenue purposes, and examining miscellaneous samples for the Admiralty, the India Office, and other buying departments of the Government. Out of 523 samples of general merchandise tested for the India Office, Dr. Bell says, "116, or nearly 22 per cent., were not genuine, or were inferior to pattern. The percentage of samples reported against is much larger than for several years past, a fact which clearly shows that there cannot safely be any relaxation of the scrutiny exercised either over the pattern samples submitted for approval, or over the bulk supplied on contract." Not a very flattering estimate of the commercial morality of the firms specially selected as purveyors to Her Majesty's Government.

AUTUMN MANŒUVRES.

THE careful reader of the report of the Irish Pharmaceutical Council meeting held this month will be rewarded by the discovery of a pretty little piece of finesse between the Vice-President and one of the leaders of the druggist opposition. The annual meeting of the Society, at which the new Council is to be elected, promises this year to be of unusual interest. From a letter we publish this week it will be seen that the associate druggists and the pharmaceutical chemist members are preparing for a trial of strength. The former are entitled to one-third of the seats at the Council if they can get them by votes; but fourteen of the twenty-one members of Council must be—and all of them may be—pharmaceutical chemists. The druggists mean to fight hard for their seven, and they further aim to have among the other fourteen a good few who, they think, will be favourable to them. Mr. Wells and his party, the present occupiers of the citadel, are making considerable efforts to retain their actual preponderance of voting strength. In view of this coming contest the two sides have been beating up their supporters with no little vigour. For some months past druggists have been elected to associateship and chemists to membership in numbers which seem to guarantee the stability of the Society financially, and which must bring the water into the mouth of a neighbouring Pharmaceutical Society.

At the last Council meeting then, after electing a number on both sides, Mr. McNeight brought forward a list of eleven names, and Mr. Gibson made up the dozen, and these were nominated for associateship. Mr. Wells quietly remarked from the chair: "These gentlemen cannot be elected in time for the October meeting of the Society." This was seen to be the case. The annual meeting is fixed by by-law on the first Monday in October, and the Council meetings on the first Wednesday in each month. The October Council meeting will be held forty-eight hours after the election has been declared. A bright idea, however, suggested itself to Mr. McNeight. He suggested the possibility of a special meeting of the Council at which his men could be elected. The pharmaceutical men were prepared to resist this innovation, but their leader was surprisingly complaisant. He had the power, he explained, to call the special meeting on the request of a member of Council, if he thought fit to do

so, and the special meeting should be called if Mr. McNeight desired it. Mr. McNeight should have remembered the history of Ah Sin, and would then have prudently distrusted that "smile which was childlike and bland." But the war spirit was on him, and he accepted the amiable offer. The next business revealed "the cards which Ah Sin had concealed, for that game he did not understand." The Vice-President tabled a motion nominating to membership thirty-five of his own supporters; another was added to make the three dozen complete, and these will of course now have the same chance of taking part in the Council election, trebly overbalancing Mr. McNeight's latest contingent. "Thrice is he armed that hath his quarrel just," Mr. Wells might have muttered as the Council separated.

HYPNOTISM IN MEDICINE.

ALL through Europe and America novelty-seeking medical men are nibbling at the modern practice of treatment by hypnotism. Whether, as a method of therapeutics, this strangely interesting, but somewhat uneasy, science has come this time to stay may be doubted, if we recollect how often it has been vainly advocated before by enthusiasts and quacks. But it may at least be asserted that it has established a claim to be fully and fairly investigated. In this last decade of the nineteenth century new medicines and new ideas are not judged by "the profession" only. The intelligent public has a voice in the matter. If the doctors sniff contemptuously at Count Mattei and his liquid electricities, the discoverer can appeal to Mr. Stead. Fifty years ago, to be branded by the critics as heterodox meant ruin; now it spells popularity and fortune. In 1842 a report of "an amputation of the thigh painlessly performed during hypnosis" was read before the Royal Medical and Chirurgical Society by Mr. W. Squire Ward, of Wellow Hall, and was received with the coarsest derision. The statements of the writer were doubted; the patient, it was said, had been trained "not to express pain," and when, at the next meeting, the minute of this paper came up for confirmation, Dr. Copland moved that all mention of the case should be erased, arguing that if it were true that the man experienced no pain the fact was unworthy of their consideration, because pain is a wise provision of Nature, and patients ought to suffer while the surgeon is operating. They are the better for it and recover better. Sir Benjamin Brodie, Mr. Liston, Mr. Caesar Hawkins, and Dr. Marshall Hall were among those who acquiesced in this view. In 1890, after a demonstration of hypnotic treatment by Drs. Kingsbury and Tuckey, before a crowded audience, a section of the British Medical Association resolved that hypnotism is worthy of investigation, and appointed a committee of inquiry to examine its credentials.

The occasions thus contrasted are mentioned by Dr. Kingsbury in his treatise on "The Practice of Hypnotic Suggestion," just published by Messrs. John Wright & Co., of Bristol. This is an apparently perfectly honest report of the author's observations, and the conclusions he draws from what he has seen and learned are given with a degree of moderation which simply staggers the ordinary reader. In Dr. Kingsbury's final chapter he gives a series of fifty "illustrative cases," as he calls them—cases which we understand to have all occurred in his own practice. It would be within the simplest use of the English language to describe these as miracles. They are nothing short of what we understand by that designation; they are definite results produced by no visible, or tangible, or comprehensible means. Let us quote the fiftieth "case"—it is one of the

least important of the series, but we select it on account of the terseness of the report :—

Case 50.—*Painful Cicatrix*.—E. M., aged about 50, had cut the back of her hand severely some years ago; the cicatrix had become acutely painful. She was easily hypnotised, and became cataleptic. The hand was rubbed, and absence of pain suggested. There has been no return of the suffering.

The other forty-nine cases are varied enough, though, as might be supposed, nervous diseases preponderate. There are several instances of serious insomnia. The patients being hypnotised, are told to go to sleep when they go to bed, and not to wake till a certain time in the morning, and they obey implicitly. One patient having been treated in this way in hypnosis carries about with her a written direction: "Go to sleep at once, and you will sleep until 7.30; you will be much better in the morning, and not require any morphia." She only needs to look at the prescription, "and the effect is always satisfactory." Cures of neuralgia, melancholia, and rheumatism are numerous; cough, asthma, and pleurisy are wonderfully relieved; chronic constipation is dealt with without medicine, a "suggestion" in hypnosis keeping the bowels in regular action for five months. Some painful operations are carried out without any pain during or after the process; a woman is satisfactorily delivered during hypnosis; and menstruation is regulated by suggestions during its influence. Appetite for alcohol or for morphia can be destroyed, and moral perversion in a girl and dishonesty in a boy are overcome by similar treatment. The child, aged 8, whose case is described under the title of moral perversion was a charming little demon. "She would go up to her nurse and caress her, and, while the servant was reciprocating the apparent affection, would suddenly strike her in the abdomen with all the strength she could muster." "She would leave her own bed, and climb on that of her mother, and kick her on the breast as hard as she could." "She would laugh if she was flogged, and say she liked it." "After one hypnotic sitting, the child's character became completely revolutionised; she became obedient, gentle, loving, and thoughtful for others."

Dr. Kingsbury quotes a good deal from the experiences of other, chiefly continental, hypnotisers, and criticises their theories or statements fairly, though perhaps in some cases rather too kindly. He touches also briefly on the history of the practice as carried out by Mesmer a century ago, by Dn Potet in Paris about 1820, by Dr. John Elliotson in London, Dr. James Esdaile in Calcutta, and James Braid in Manchester some forty or fifty years since. That the strange influence exists is undoubted; that its study leads us into the fascinating region of psychic force, and may be the most direct way towards the solution of some of the most puzzling of metaphysical problems, is obvious; and that it should not be degraded into a mere platform exhibition will be, we suppose, the wish of most serious people. But the dangers which may be associated with hypnotism cannot be overlooked. The frightful suggestion which was brought before the reading public in the defence of Gabrielle Bompard in the Gouffé murder trial in Paris, namely, that she had been impelled to the murder by the commands of her paramour under hypnotic influence, revealed one such risk. Dr. Kingsbury does not seem to think the danger is so great as might be thought. He believes it is almost impossible to impel people to deeds for which they have an aversion. He tells of a gentleman who could not be induced to make a speech, and of a boy who, though hypnotically docile in other matters, would not kiss his sister. But these instances are far too slight in view of the statements of other practitioners

to satisfy the public, and if hypnotism is to be practised at all generally some legislative control of it will have to be adopted. That careful and unprejudiced investigation of its claims is called for is the conclusion to which the reader of Dr. Kingsbury's book is inevitably led.

COPPER IN PEAS.

SHERIFF BIRNIE, of Glasgow, has a hard nut to crack in the tinned-peas case, which has been before him this last fortnight. The medical evidence, which we reported last week, has not, we should suppose, assisted him much. Four of the leading medical authorities of the North gave it as their confident opinions that the copper in the peas might be very dangerous to health, but they were unable to give the court any tangible facts on which they based those opinions. On the other hand, several other equally qualified medical authorities were as confident the other way. They took the peas themselves. One of them declared that he regarded the copper in them as an improvement. It acted as a nervine tonic. This week we publish the arguments of counsel on the case. The prosecution rely on their authorities, and the sheriff is ingeniously reminded that, if he should give judgment in favour of the defendant, he will be thereby giving a terrible legal certificate authorising the sale of a poisonous food. With a bold disregard of all our old traditions, the counsel for the prosecution calls upon the court to give the benefit of any doubt which may exist to the public—that is, against the defendant. The other counsel points to the conflict of expert opinion, and still more effectively to the hundreds of millions of tins of coppered peas which have been sold, and to the utter absence of any evidence of injurious effects resulting.

In view of this controversy, Mr. C. T. Kingzett opportunely reminds us of a paper read at the meeting of the British Pharmaceutical Conference at Plymouth in 1877, which recorded experiments made by himself and Dr. Paul on this subject. They had ascertained that the tins of French preserved peas each contained $1\frac{1}{2}$ grain of sulphate of copper. But they had themselves taken 3 grains of sulphate of copper per day, and had found by experiment that it nearly all passed away in the fæces. They expressed the opinion that handling copper coins was as likely to produce injurious results as taking the coppery peas. A lively discussion followed the reading of this paper. Mr. Siebold protested against the theory that the copper could have no injurious effect if it passed through the system, and Dr. Redwood, who had been concerned as analyst in some prosecutions of vendors of these peas, was reluctant to admit that they were not poisonous. On the other hand, Mr. Thompson, of Manchester, and other speakers gave facts which went in support of the views of the authors.

The knotty point which we have thus stated now awaits the decision of the Glasgow sheriff, and the *dénouement* will be duly recorded in our next.

SOCIALISTS AND PHARMACISTS IN GERMANY.—For some time the nationalisation of pharmacies has been widely advocated by Social-Democrat leaders in Germany. At the annual conference of the Socialist party, which will be held in Erfurt on October 10, a definite proposition will be debated to elevate the nationalisation of pharmacies to the dignity of a plank in the official platform of the party. In the meantime the organs of the "younger" section of the party have already declared against the proposal, which they declare to be impracticable. The "older," or more conservative, Socialists generally support the proposal, and a tough battle is expected when it comes up for discussion.

LONDON BOTANY.

By H. HELBING, F.C.S.

IN last Saturday's *Standard* a letter appeared over the name of "Arthur Cottam" and under the title "London Botany," describing the flora of the site of Lord Carrington's house—No. 8 Whitehall—which was pulled down in 1886, and since that date left undisturbed. In examining the soil of this place the writer came across the thirty-four plants named below, all growing within a distance of about a quarter of a mile of Charing Cross:—

<i>Stachys arvensis</i>	<i>Senecio viscosus</i>
<i>Sisymbrium officinale</i>	<i>Erigeron Canadensis</i>
<i>Capsella bursa-pastoris</i>	<i>Tussilago farfara</i>
<i>Stellaria media</i>	<i>Hypochaeris radicata</i>
<i>Arenaria serpyllifolia</i>	<i>Taraxacum dens-leonis</i>
<i>Sagina procumbens</i>	<i>Sonchus arvensis</i>
<i>Trifolium repens</i>	<i>Sonchus oleraceus</i>
<i>Prunus cerasus</i>	<i>Solanum tuberosum</i>
<i>Epilobium angustifolium</i>	<i>Lycopus Europæus</i>
<i>Epilobium hirsutum</i>	<i>Plantago major</i>
<i>Epilobium parviflorum</i>	<i>Plantago lanceolata</i>
<i>Carduus lanceolatus</i>	<i>Atriplex patula</i>
<i>Carduus arvensis</i>	<i>Polygonum convolvulus</i>
<i>Arctium lappa</i>	<i>Polygonum aviculare</i>
<i>Matricaria inodora</i>	<i>Polygonum Persicaria</i>
<i>Artemisia Cotula</i>	<i>Populus nigra</i>
<i>Senecio vulgaris</i>	<i>Salix aurita</i>

Surprising as the size of this collection appears at first sight, the observing botanist is well aware of the fact that a quantity of specimens of Nature's prolific vegetative vigour can be collected within the boundaries of the most populous town, while sometimes what are even rare plants may be found quietly and unostentatiously producing their leaves, flowers, and seeds within sight and sound of the roar of commercial enterprise and the many avocations of modern civilisation and culture.

Nevertheless, the list of plants given above is of considerable interest, especially as some of them would scarcely have been expected in a locality which manifestly could not be described as moist or marshy—conditions generally affected by certain of the species named. The number must even be acknowledged to be notable in view of the fact that the Middlesex flora embraces in all only about 800 wild flowers of the phanerogamous sub-kingdom, all of which can be found in and about London.

Of course, the number of plants which may be collected within the borders of a town does not amount to 800; it is, however, quite considerable, in proof of which I give below a list of some 100 species, most of which I have repeatedly gathered in the proximity of houses situated in the centre of towns. Although the list has no direct relation to the flora of London, yet, by comparing it with that of Mr. Cottam, many points of contact will be noted.

<i>Chelidonium majus</i>	<i>Galium mollugo</i>
<i>Sisymbrium Sophia</i>	" <i>aparine</i>
" <i>officinale</i>	<i>Tussilago farfara</i>
<i>Stachys arvensis</i>	<i>Bellis perennis</i>
<i>Thlaspi arvense</i>	<i>Erigeron Canadensis</i>
<i>Lepidium campestre</i>	<i>Helianthus annuus</i>
" <i>rudemale</i>	<i>Filago minima</i>
<i>Capsella bursa-pastoris</i>	<i>Achillea millefolium</i>
<i>Roseda luteola</i>	<i>Senecio vulgaris</i>
<i>Sagina procumbens</i>	<i>Carduus lanceolatus</i>
<i>Stellaria media</i>	" <i>acanthoides</i>
<i>Arenaria rubra</i>	<i>Cirsium arvense</i>
<i>Lilium catharticum</i>	<i>Lappa minor</i>
<i>Geraanium pasillum</i>	<i>Centauria Jacaea</i>
<i>Mellilotus albus</i>	<i>Lamprana communis</i>
<i>Trifolium minus</i>	<i>Cichorium Intybus</i>
<i>Rhus, various species</i>	<i>Leontodon Taraxacum</i>
<i>Fragaria vesca</i>	<i>Lactuca muralis</i>
<i>Epilobium angustifolium</i>	<i>Sonchus oleraceus</i>
" <i>hirsutum</i>	" <i>arvensis</i>
<i>Portulaca oleracea</i>	<i>Ligustrum vulgare</i>
" <i>sativa</i>	<i>Convolvulus sepium</i>
<i>Herniaria glabra</i>	" <i>arvense</i>
<i>Sedum album</i>	<i>Borago officinalis</i>
<i>Semper vivum tectorum</i>	<i>Echium vulgare</i>

<i>Lithospermum arvense</i>	<i>Plantago lanceolata</i>
<i>Myosotis arenaria</i>	<i>Chenopodium hybridum</i>
<i>Solanum nigrum</i>	" <i>murale</i>
" <i>dulcamara</i>	" <i>vulvaria</i>
<i>Hyoscyamus niger</i>	" <i>Bonus Henricus</i>
<i>Datura stramonium</i>	<i>Polygonum aviculare</i>
<i>Atropa belladonna</i>	" <i>convolvulus</i>
<i>Ignaria oymibularia</i>	<i>Euphorbia Esula</i>
" <i>vulgaris</i>	<i>Mercurialis annua</i>
<i>Veronica arvensis</i>	<i>Urticaria urens</i>
<i>Salvia pratensis</i>	" <i>dioica</i>
<i>Satureja hortensis</i>	<i>Cannabis sativa</i>
<i>Lamium album</i>	<i>Humulus lupulus</i>
" <i>purpureum</i>	<i>Salix, var. species</i>
" <i>maculatum</i>	<i>Gagea pratensis</i>
<i>Ballote nigra</i>	<i>Carex, various species</i>
<i>Anagallis arvensis</i>	<i>Gramineæ, various</i>
<i>Plantago major</i>	<i>Coniferae, various</i>
" <i>media</i>	

These urban plants are, of course, not peculiar to towns, although the botanist will frequently find, considerably to his surprise, plants flourishing between the stones of pavements, which are by no means abundant under the most favourable conditions. Thus, for instance, in my own native town, Darmstadt, I have seen quite a number of rare plants in situations which the ordinary citizen walked over without giving a thought to the botanical treasures which he trampled under foot. Among these may be named *Panicum sanguinale*, *P. ciliare*, and *P. crus galli*, *Portulaca oleracea*, *Arenaria rubra*, *Thlaspi arvense*, *Herniaria glabra*, *Polygonum aviculare*, as well as *Capsella bursa-pastoris*, various species of *Plantago*, *Senecio*, and *Gramineæ*, which sprang up, as it were, under the very feet of the townspeople.

Of late years the number of this class of plants growing between stones on the public streets has been greatly reduced, partly owing to the uncompromising efforts of local authorities, who look on all such intruders as "weeds," and have them incontinently uprooted so soon as they appear, and partly in consequence of the increased adoption of asphalt and cement paving.

Although a great number of such plants must be admitted to be indigenous to, or at least acclimatised in, the district where they are found, there is yet a very considerable proportion which is of quite a sporadic character, and consequently a frequent source of vexation to the botanist, who will often be disappointed to find that plants have entirely vanished from their old haunts without leaving a trace behind.

Very interesting in this particular are rubbish-heaps, which are to some extent patronised by species of quite an official character. In many places, especially where dust and waste from houses are thrown, such collections can be met with; and a peculiarity of them which I have observed in numerous instances is the way in which dull-coloured flowers associate together under such conditions.

It is a difficult problem to explain the companionship of certain groups of plants which will be frequently met with in such situations without affording any trace of the manner of their coming or going. Such groups of plants are also of further interest when we observe that certain families contribute nearly all the members of the colony. I have often found together, for instance, the somewhat suspicious assemblage indicated below:—

<i>Solanum nigrum</i>	<i>Borago officinalis</i>
<i>Datura stramonium</i>	<i>Echium vulgare</i>
<i>Hyoscyamus niger</i>	<i>Tussilago farfara</i>
<i>Atropa belladonna</i>	<i>Chenopodium Bonus Henricus</i>
<i>Mercurialis annua</i>	<i>Urticaria dioica</i>

Gramineæ, various

Similar collections are to be found in London without much difficulty.

While on the one hand the plants referred to select a soil which is of very recent date, and which consists chiefly in waste material, there are others which are to be found chiefly in places of very ancient character: thus, for instance, there are species which, in the wild state, are hardly to be met with at all, save where the ruins of castles and the like stand untouched for centuries. It is noteworthy that these plants, which thus seem to be of aristocratic tastes, are by no means easily transplanted to any building of similar

character but of recent construction. Perhaps they find their appropriate nutriment in the *débris* of old castle walls, doubtless built with other materials than those used now, which has been disintegrated by time and weather. The fact, however, is recognised in all countries of the world.

Cheiranthus cheiri, which in this country is not a rare plant in the wild state, is met with in Germany only very seldom on ancient ruins of the Rhine, &c. The same may be said of *Corydalis lutea*, of *Iris pumila*, of *Linaria cymbalaria*, and of several other plants.

These species, as I have already intimated, are of a very stubborn nature, rarely leaving their native habitat, and thus, although limited in distribution to a very few spots, have not moved or spread themselves during sometimes more than a century. On the other hand, there are plants which are, if one may be allowed the expression, most unreliable in their manner of life; they associate in colonies, which appear in a place, cultivated or the reverse, like a swarm of locusts, and, after a year, or two, or three, disappear temporarily or entirely, only to turn up in some other locality. Sometimes this movement, from year to year, resembles the march of an army or the spread of a hardy and vigorous people from a few scattered centres.

The most conspicuous instance of this which I have observed was afforded by *Lepidium draba*, which twenty years ago was only known to occur in a very few places scattered over Germany; during the two decades which have since elapsed it has appeared and disappeared here and there, though undoubtedly taking firmer root in the country, in numerous new situations, so that it might now be looked for with a good chance of success in places where once it was never known. The appearance and disappearance of plants in this manner, in illustration of which other *Lepidium* species, as *L. ruderalis* and *L. campestris*, and *Isatis tinctoria*, may be cited, is one of the problems of plant life which await solution.

But while, on the one hand, we find plants which, in spreading themselves, have to engage upon a fierce life-struggle, other individuals take possession of a country, so to speak, and, like parasites, are most difficult to uproot and destroy. Here, again, in Germany we come upon a very curious phenomenon—viz., that most of these invaders are of American origin, and, although hardly known at all a few decades since, are now a kind of plague to the country.

Of this class is *Eloidea Canadensis*, which covers enormous areas of water in many river-districts of Germany, so as to present a formidable barrier to navigation. Then there is *Erigeron Canadensis*, which may be stumbled across almost anywhere on the Continent, and has lately spread so largely in Germany as to have become a nuisance. *Stenactis annua*, *Aster parviflorus*, and *Impatiens parviflora*, which is originally a native of Mongolia, are also spreading with more vigour year by year, and defy all efforts at wholesale eradication.

Some of the plants named illustrate another remarkable feature. The American species of aster, stenactis, and erigeron are not only all Compositæ, but nearly related to one another, only differing structurally in minutæ. How is this to be explained?

In conclusion, a word or two may be said about plants which may be truly described as settlers of their class. They are entirely indigenous plants, and yet are not known to grow, save in special circumscribed districts where they have propagated for centuries, never spreading, but appearing year after year in the same quantity, and on the same area, and constituting the only specimens of the species in the whole country.

Such a colony, for instance, is in existence of the boraginaceous plant, *Onosma arenarium*, which is located in a sandy district near Mayence, where also other rare plants are to be found. In explanation of the presence of these isolated colonies it has been suggested that they had been imported during the Thirty Years War, having been brought over by Hungarian regiments which encamped on the sandy plains referred to, and possibly left behind in the new habitat, where they have since taken root, some seeds of the plant.

Many other instances could be cited to prove that observations of the nature of those recorded by Mr. Cottam are exceedingly interesting in increasing our knowledge of the history and derivation of plants.

Trade Notes.

MR. WM. GARDNER'S "Rapid" sifter has been awarded a silver medal by the Staffordshire Agricultural Society.

MISS SPRULES, of Mitcham, has been awarded the gold medal at the Jamaica Exhibition for her essential oils and Mitcham lavender water.

MESSRS. DOMEIER & Co., of 13 St. Mary-at-Hill, E.C., intimate that Mr. O. Karlowa has retired from their business, and Mr. Charles Twietmeyer has returned to the firm as manager.

MR. JAMES PASCALL, of Valentine Place, Blackfriars Road, S.E., now puts up his herbal tablets in 3-oz. tins, without his name, so that chemists may sell them as their own cough-drops. A box is a good sixpennyworth.

MESSRS. FUERST BROS., 19 Philpot Lane, E.C., send us a sample of their "first-pressing" castor oil. This, we understand, is made from East Indian seed, and is wonderfully pale in colour and bland to taste. Compared with commercial Marseille "first-pressing" oil, it is decidedly superior, especially in respect to colour and odour.

MARRIAGES

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

CADBURY—SOUTHALL.—On September 8, at Friends' Meeting House, Birmingham, Barrow Cadbury, eldest son of Richard Cadbury, to Geraldine, eldest daughter of Alfred Southall.

CHAPLIN—TIBBS.—On September 2, at St. Luke's, West Holloway, by the Rev. Archibald, Glover, Charles Albert Julian Chaplin to Harriet (Trotty), eldest daughter of the late Frederick Tibbs, pharmaceutical chemist, of Parkhurst Road, Holloway, N.

KINGAN—FLATTLEY.—On September 2, at St. Saviour's Church, St. George's Square, S.W., David Kingan, pharmacist, 63 Lupus Street, to Florence Clara Sophia, daughter of Mr. J. C. Flattley, of 3 Cambridge Street, S.W.

STRONG—DONOHUE.—On September 2, at St. Matthew's Church, Irishtown, by the Rev. Wm. Reeves Scully, B.A., George Strong, L.P.S.I., Kingstown, to Annie E. only surviving daughter of the late Andrew Donohue, Kilgreaney, Co. Carlow, Ireland.

DEATHS.

BAGE.—Mr. Edward Bage, a partner in the firm of Felton, Grimwade & Co., died in Melbourne, after a long illness, on July 7. He was born at Sierra Leone, and went to Victoria with his parents when an infant in 1853. On leaving school he went into the house in which he afterwards became a partner. This was over twenty-four years ago, and he had been some fourteen years in the business when he was taken into partnership. His health had not been good for two or three years past, and he made trips to the Sandwich Islands and to Europe, but improved little.

LIEBIG.—The death is announced from Reichenberg of Baron Liebig, a son of the eminent chemist.

OWEN.—On August 28, Mr. Walter Owen, chemist and druggist, Duke Street, Park, Sheffield. Aged 62.

ROWLAND.—On August 30, at his residence, Epping, Essex, Mr. Thomas Flanders Rowland, chemist and druggist. The business which Mr. Rowland had conducted for many years was established by his father in 1819. His son has been the active manager of it for some time.

METAMIDOPHENYLPARAMETOXQUINOLINE is the thing to cure stuttering. Put up as a speciality with a phonographic key, chemists might make a fortune out of it.



AND

Literary Notes.

A Few Notes on Varnishes and Fossil Resins. By R. Ingham Clark, F.L.S., F.R.G.S., &c., illustrated by James West. London: Charles Letts & Co. Price 7s. 6d.

MR. CLARK'S book is more unassuming in its title than in its dress. The author of the work, who, we believe, is actively connected with the industry in which the articles of which he treats are most largely consumed, has clearly intended to produce rather an *édition de luxe* in which fossil resins are discoursed upon in light causeries, enlivened by pretty fantastic drawings and with such further satisfaction to the eye as may be derived from high-class paper, neat printing, and ample margins, than a handbook for the use of the average business dyestaller. In this object Mr. Clark has succeeded as well as could be wished, but we hope that at some future time he will use the valuable information of which he is evidently the possessor to produce a more solid reference work, for which we should think there is a real opening. The author treats of varnishes generally, diving into remote antiquity and discussing at considerable length the wrappings of Egyptian mummies, the vexed subject of Japanese lacquer and other historical aspects of his subject. In the second part of his book he becomes more practical, and successively reviews the production, varieties, and trade in amber, animi, the various copals, kauri, damar, and mastic resins. The chapters dealing with the two last named are exceedingly scrappy, and some varieties of these resins are not even referred to by name. With regard to the kanri gum, the author expresses a fear that the day may not be far distant when the supply shall be practically exhausted, and advises the imposition of an export duty upon the resin. "No other fossil resin," he says, "could take its place, from a peculiarity which it possesses (entirely its own) of assimilating with oil more readily, and at an easier temperature, than any other gum—not excepting even those of a lower melting point." So far as our information from New Zealand goes, however, the probability of an exhaustion of the gum fields appears as remote as ever, new deposits being constantly discovered. The last gum field, of which the finding has only recently been announced, is believed to cover over 100,000 acres, so that, in spite of the fact that since the early fifties, when kauri gum first became an article of commerce, nearly 200,000 tons have been exported from the island, the exhaustion of the supply may safely be ranged with those academic questions, such as the exhaustion of the coal supply of Great Britain, which are pretty sure to be solved long before they become acute.

The Treatment of Typhoid Fever, especially by Antiseptic Remedies. By J. Burney Yeo, M.D. London: Cassell & Co. (Limited).

THIS little treatise, now published in book-form, is the enlargement of an important lecture delivered by Dr. Burney Yeo at King's College Hospital. The author advocates an early antiseptic treatment of typhoid fever, and he passes in review many methods which have been successful, and shows that these have all been antiseptic. Sulphurous acid, sulphide of carbon, beta-naphthol, eucalyptus, turpentine, creosote, thymol, mercurials, and even quinine—all, in his view, apparently, owe their virtue as they possess to their antiseptic properties. Dr. Yeo's own method, with which he claims to have had remarkably good results, has been to prepare a solution of chlorine by adding 40 minims of strong hydrochloric acid to 30 grains of potassic chlorate in a 12-oz. bottle, adding water gradually to fill the bottle, after the gas has been liberated. To this solution he adds 24 or 36 grains of quinine, and 1 oz. of syrup of orange-

peel, and gives an ounce every two, three, or four hours. He adds comments on the feeding of typhoid patients and on other accessories of treatment.

Norris's Nursing Notes: A Manual of Medical and Surgical Information for the Use of Nurses and Others. By Rachel Norris. 2s.

A Manual of Practical Electro-Therapeutics. By A. Harries, M.D., and H. N. Lawrence, M.I.E.E. 1s. 6d.

Massage for Beginners. By Lucy Fitch. 1s.

THESE are numbers of the "Nursing Record" series of manuals, edited by Mr. Charles F. Rideal, and published by Sampson Low, Marston & Co. (Lim.). The series is promised as "a complete library of nursing works," and we must say that the editor and publishers are setting about the task in a thoroughly business-like way, the books being well-arranged, clearly and neatly printed, and bound in paper boards sympathetic with the *Record* cover.

Of the works themselves we have no reason to speak in other than favourable terms. Mrs. Norris's "Notes" is a standard book, written some years ago by herself and the late Alice Fisher. It is now brought up to date, and consists largely of a sound, popular description of human anatomy and physiology, with which are associated in the proper places an account of the more common diseases affecting the various organs, and the duties which fall to the nurse in connection therewith. Hints on invalid cookery, on prescription abbreviations, a glossary of medical terms, and a good index complete this useful manual.

The book on electro-therapeutics is the work of two well-known specialists. Of the twelve lessons into which it is divided, the first six deal with the elementary facts of electrical science, so treated as to give a good groundwork in the knowledge necessary for the application of electricity as a therapeutic agent. The second six lessons carry the reader on to the methods of application and the management of electrical apparatus. The useful nature of the book may be gathered from the following quotation regarding the electrical removal of hairs:—

Suppose we wish to remove a series of hairs from the face, and that we select the chin as our starting-point. It will be advisable, for various reasons, that the pad should be connected with the positive and the needle with the negative pole. Arranging the former on the chest, or back, or using an electrode which can be grasped in the hand, the skin surrounding the particular hair selected is grasped between the thumb and forefinger of the operator's left hand. The needle is now inserted into the follicle beside the hair in such a way that its axis may be as nearly as possible that of the hair. The current is switched on to a strength of from two to five milliamperes, and with the gentlest imaginable pressure the needle passes down the follicle beside and parallel with the hair until it reaches a point at which resistance is felt. Here further progress inwards must be suspended, for the point of the needle has reached the frondus of the follicle, and further insertion is not only needless, but harmful. Retaining the point in this position for a few seconds (fifteen to thirty will generally suffice), a fine effervescence will be noted at the point of entry. The needle may now be withdrawn, and grasping the hair with a fine forceps, it will be found to be perfectly loose, and should come away without perceptible traction. If force be needed to withdraw the hair, the operation has not been properly done, and will need to be repeated.

Care must be taken that the needle is passed *only along the follicle*, and not forced through the skin; also that careful note is made of the C-s employed, and the time occupied. Disregard of these points will lead only to failure, and may cause scarring—a matter of importance when the face is the part operated on. There should be no bleeding.

All the technical terms employed in such paragraphs, the nature and uses of the instruments, and the kinds and power of currents are the matters which the authors write about.

In "Massage for Beginners" we have a very concise description of the different movements of the hands and fingers employed in this still popular mode of treatment. Appended to all the manuals are examination questions, and the first two are well illustrated. They are books which chemists may add to their stock with advantage.

In poisoning, if the patient is unruly (says the *Dixie Doctor*), don't waste time. Throw $\frac{1}{10}$ to $\frac{1}{2}$ grain of apomorphia under the skin, and then watch patient vomit freely, fully, remorselessly, and from his boots up.

MOTHS.

THIS is about the insects and their grubs which are so much camphorated in the springtime. Chemists may find the information useful for their spring circulars. Housewives work a great deal in the dark when they begin to worry out the moth. The moth works in the dark, too. But there are three of him—*Tinea pellionella*, Linn., *T. tapetzella*, Linn., and *Tineola biselliella*, Hummel. The insects of the first and commonest species, says a writer in the *Upholsterer*, are light brown, and distinguished by the spots. They begin to appear late in April, and may occasionally be seen flitting about as late as August. They pair off, and the female then searches for suitable places for the deposition of her eggs, working her way into dark corners, crevices of the walls, cracks in the floor, or deep in the folds of garments, apparently choosing by instinct the least conspicuous places. The moth lays from 18 to 140 eggs at a time. From these eggs hatch, in a period of from three to seven days, the white soft larvæ, or worms, all of which begin immediately to make a case for themselves from the fragments of the cloth upon which they feed. The case is in the shape of a hollow roll, a thirty-second of an eighth of an inch long. As the worms grow, they enlarge this case by adding material which they get by feeding.

The worm reaches its full growth in thirty-six days, and then crawling into some yet more protected spot remains torpid during the winter within its case, which by this time is thickened and fastened at either end, and is the full-sized cocoon. The transformation of moth takes place within the case during the following spring. Such is the life-round of the species. The worm feeds on woollen fabrics. furs—ah! every housewife knows all that it attacks too well.

Remedies for moths are varied and peculiar, and many a rich harvest has been reaped through the ignorance of people regarding the moth and its habits. Folks have bundled up their woollens and packed them away in their wardrobes and drawers full of tarholine, or carholine, or cedarline, or camphorline, and actually believed that they would be safe until the autumn. They have wrapped up hundreds of moth-eggs, which eventually hatch the grubs. These odours will never kill a moth or destroy its life-germs. True a moth will not voluntarily seek a nesting-place where the odour exists, but if boxed up with an odour it cannot escape from, it simply proceeds to lay its eggs in the atmosphere, which becomes a second nature to the grub when hatched.

Anything saturated with arsenic, or creosote, or even salt, or impregnated with sulphur, the moth or worm will not touch; but these articles are obviously objectionable. The point which we would enforce is that the housewife should look out for the worm. It is difficult to kill the eggs by reason of their almost imperceptible minuteness, and difficult also to eradicate the moth by reason of its secretive habits. A benzene spray is sure death, but there are many objections to its use and danger from its inflammable character; still, if the ordinary hall atomiser is filled with benzene, and the vapour thrown into crevices against moth or eggs, it will destroy them, but no light should be brought into a room thus treated, until after it has been thoroughly aired and the odour dissipated.

Camphor, tobacco, naphthalene, and other strong odorants are only partially repellant to the flying moth, and have no effect at all upon the egg or the worm. The benzene spray is the least objectionable destroying agent that we know of. It may be used very safely upon carpeting, but the utmost care should be exercised in using it on fabrics of a delicate character.

One should not confuse the moth with the carpet beetle. Frequently housekeepers discover their carpets eaten and they attribute it to moths. The perfect beetle is three-sixteenths of an inch long, and when disturbed it draws in its legs and feigns death. It is white and black, scarlet being confined to a strip down the middle of the back. It begins to appear in the autumn, and soon the species pair off and the female deposits her eggs upon the carpet itself, and not in the cracks and crevices as generally supposed. During the daytime these beetles frequently fly to the windows and may be caught there, but they seldom leave

the house until their eggs have been deposited. The treatment is similar to that with moths. A hand atomiser, charged with benzene, should be used to inject the liquid into all the floor cracks and under the baseboards, until every crevice has been reached. The carpets themselves, after thorough heating, should be lightly sprayed with the same substance.

PHOTOGRAPHIC NOTES.

(Written for THE CHEMIST AND DRUGGIST.)

CHLORO-CYANIN.

Dr. Eder states that by converting the ordinary commercial, or iodo-cyanin into the chloride, fog is obviated, and we are thus enabled to use the best sensitising agent for the red and infra-red spectrum without getting fog and stain. The process is very simple. Commercial cyanin is placed in a porcelain or platinum dish, covered with a mixture of hydrochloric acid and water, and evaporated to dryness on a water-bath; the residue is again damped with hydrochloric acid and evaporated to dryness. Hydriodic acid is given off, and chlor-cyanin remains, with a trace of adherent acid, which may be dissipated by heating carefully on a sand-bath till the chlor-cyanin begins to show a beautiful metallic iridescence; the trace of acid is by no means prejudicial, as cyanin is always used in conjunction with ammonia as a sensitiser.

ORTHOCHROMATIC COLLODION EMULSION.

Dr. A. Jonas has just published one of the most striking and important papers relating to orthochromatic work which has appeared for many years. For some time a special colour-sensitive collodion, manufactured by Dr. E. Albert, of Munich, has held the front rank for the reproduction of coloured objects, paintings, &c.; its chief characteristics are extraordinarily high general and colour sensitiveness, and the fact that no yellow screen is necessary for use with the same, the emulsion being so little sensitive comparatively to blue. Dr. Jonas has now published a process which has the same characteristics, and the following is the method of making the emulsion, which might well be undertaken by chemists, and could be supplied to amateurs and professionals, and also to those houses who make a specialty of copying pictures. In Germany it is sold at 12s. the half litre, or 22s. per litre, with the special dye solutions, 1s. per 100 c.c. extra, and the developer at 2s. 6d. per litre. The raw, or plain, collodion is made as follows:—

Solution 1.

Ammonium bromide	64 grammes
Distilled water	80 c.c.
Absolute alcohol	800 "
Thick collodion (4 per cent.) ..	1,500 "
Acetic acid	65 "

Dissolve the bromide in the water by the aid of heat; then add the alcohol, collodion, and acetic acid, and shake well.

Solution 2.

Silver nitrate (crystal)	80 grammes
Distilled water	50 c.c.

Dissolve by heat, and add, drop by drop, liq. ammonia '91, till the brown precipitate first formed is again redissolved (about 72-75 c.c. are required). Then add 800 c.c. of absolute alcohol, heated to 45° C.

Now, in the dark room, add solution 2 to solution 1 very gradually, shaking between each addition; keep solution 2 at a temperature of 40-50° C. during the mixing, by placing the bottle in hot water. With the above quantity the mixing should take from ten to fifteen minutes. When mixed, a drop of the emulsion is placed on a glass plate, a drop or two of water added, and tested by litmus-paper. It should give an acid reaction, and, if alkaline, more acetic acid added to the emulsion, which should be well shaken for fifteen minutes, allowed to stand for an hour, and then poured in a thin stream into five or six times the volume of water. The bromide-of-silver collodion is, of course, pre-

capitated, and should be collected on a clean linen cloth, the ends of which are tied together so as to form a bag, and this placed in running water for one or two hours to wash. The emulsion is then pressed gently to remove the excess of water, placed on a thick pad of pure filter-paper to dry, which takes one or two days. When absolutely dry, which may be known by breaking one or two of the larger pieces of emulsion up, it may be preserved indefinitely in a bottle in an absolutely dark place, or may be used to form the raw collodion as follows:—

Dry bromide-of-silver collodion	6 grammes
Absolute alcohol	40 c.c.
Ether	63 "

Dissolve by frequent shaking.

To make this collodion colour-sensitive dye solutions are added just before using. The solutions are made as follows:—

Eosin Silver Solution.

1. Eosin Solution.

Eosin (crystal)	4 grammes
Distilled water	50 c.c.
Alcohol (96 per cent.)	450 "

2. Silver Solution.

Silver nitrate	3.4 grammes
Distilled water	50 c.c.

Dissolve and add solution of ammonia till the precipitate first formed is redissolved, and add—

Alcohol (96 per cent.) to make	200 c.c.
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3. Ammonium Picrate Solution.

Picric acid	3 grammes
Distilled water	10 "
Ammonia solution, q.s. to exactly neutralise	
Alcohol (96 per cent.) to	330 c.c.

For use one mixes:—

	c.c.
Solution 1	75
" 2	30
" 3	30
Pure glycerine	20
Alcohol (96 per cent.)	45

This eosin silver solution should be allowed to settle for one or two days, then filtered, and 20 c.c. of the same should be mixed with 100 c.c. of raw emulsion.

Erythrosin Silver Solution.

1. Erythrosin Solution.

Erythrosin (pure)	4 grammes
Distilled water	50 c.c.
Alcohol (96 per cent.)	450 "

Dissolve.

The above-mentioned solutions of silver and picrate of ammonia are also used for making the following stock solution:—

	c.c.
Solution 1	75
" 2	30
" 3	30
Pure glycerine	25
Alcohol (96 per cent.)	120
Distilled water	20

The cloudy solution thus obtained is allowed to stand for a quarter of an hour, and then liq. ammonia added drop by drop till it becomes quite clear; the solution is then kept in a corked bottle for one or two days to settle, then filtered, and 20 c.c. added to every 100 c.c. of emulsion immediately before use.

Eosin and erythrosin sensitise bromide of silver for yellow and yellowish green, the maximum effect being visible at D₄ E, or midway between the yellow and green. Eosin gives soft harmonious negatives, erythrosin somewhat harder, or more contrasted, negatives. To sensitise for red and orange it is necessary to use cyanin, preferably the chloro-cyanin, as follows: 0.3 gramme of chloro-cyanin should be dissolved in 50 c.c. of water, and 10 c.c. of this solution added to 100 c.c. of raw emulsion, and 1 c.c. of pure glycerine. The cyanin emulsion should then be mixed with an equal quan-

tity of erythrosin emulsion, and one thus obtains a sensitive-ness ranging from A in the red to H in the violet.

The dyed emulsions will not keep more than two days, and should be twice filtered through a clean pad of cotton-wool before coating the plates.

Eosin silver emulsion, with 51 mg. of free silver nitrate added to every 100 c.c. of emulsion, showed 21 degrees Warnerke, without excess of silver 17° W., erythrosin silver giving respectively 21° W. and 15° W.; the cyanin erythrosin silver emulsion gave 13° W.; therefore the sensitiveness of these plates is equal to that of the ordinary and rapid gelatin dry plate.

The eosin and erythrosin silver solutions are sensitive to light, and must therefore be made and kept in the dark.

As with all collodion emulsions, the plates should receive a substratum, preferably of gelatin solution 1 per cent. with 1½ per cent. of acetic acid and 2 per cent. of alcohol. The plates are coated exactly in the same way as with the old wet-plate collodion, and, as soon as the collodion has set, the plate is exposed, but it will keep damp for thirty or forty minutes without any fear of ill-results. After exposure the plate is well washed under a stream of running water until the greasy marks no longer show, then propped up for a minute to drain, and then flooded with the developer, which is made up as follows:—

Stock Solution A.

Distilled water	500 grammes
Sodium sulphite	200 "
Carbonate of potash (from the tartrate)	200 "

Stock Solution B.

Hydroquinone	25 grammes
Alc. hol (95 per cent.)	100 c.c.

Stock Solution C.

Ammonium bromide	25 grammes
Distilled water	100 c.c.

The concentrated developer is made up of

Solution A	100 c.c.
" B	5 c.c.
" C	7 c.c.

The actual developer of

Concentrated developer	150 c.c.
Distilled water	1,000 c.c.

The character of the negative may, of course, be altered by increasing or decreasing the quantity of concentrated developer or the proportions of the several ingredients—the hydroquinone giving density, the bromide clearness, and the potash accelerating.

When the image has sufficiently developed it can either be intensified with the usual acid pyrogallol and silver intensifier, after washing, or it may be fixed in hypo, washed, and then intensified with the above intensifier or the mercury and sulphite, as used for gelatine plates.

A ONE-SOLUTION REDUCER.

THE following formula for a good all-round reducer of density is given by Herr Belitski, of Nordhausen:—

Potassio-ferric oxalate	15 parts
Neutral sodium sulphite	15 "
Distilled water	300 "

The solution is of a blood-red colour, due to the ferric sulphite formed.

Add—

Oxalic acid (crystals)	5 parts
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and shake till the solution becomes green; then decant from the undissolved acid, and add—

Hyposulphite of soda (crystal)	75 parts
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Shake till dissolved, and filter. Keep in well-closed bottles, protected from light.

The negative which it is desired to reduce should be well rinsed when it comes from the fixing-bath, and laid in the reducer; when the action has proceeded far enough, wash quickly, and dry. The solution may be used over and over again till it becomes yellow, when its reducing powers are exhausted.

BRITISH AND FOREIGN CONSULS' REPORTS.

CHINA.

Chinese opium.

The Commissioner of Customs at Chefoo, in his report for 1890, hazards the statement that the province of Shantung annually produces about 3,786,666 lbs. of native opium. If this estimate is correct Shantung alone produces a quantity of opium exceeding one-third of the net importation of the foreign drug into China, which in 1890 is given as 10,215,466 lbs. To realise what these figures mean it may be mentioned that an English acre in China will produce on an average some 16 lbs. of the drug, so that in this province alone there must be over 230,000 acres of land under poppy for six or seven months of the year.

JAPAN.

Japan Wax.

The business in vegetable wax has been unprofitable to shippers during the last year, as the price has fallen below the cost of production, and because the crop is sent direct from the producing districts to Kobe and Osaka, where the buyers for Europe have to compete with an active demand for home consumption.

Camphor.

During 1890 there was a slight increase in the value of camphor exported from Nagasaki, but this is due entirely to a great rise in price, the quantity being smaller than for any of the last ten years. In the six years 1882-87, the export of this valuable drug averaged about 15,000 piculs, in 1890 it fell to about 6,000 piculs. The systematic adulteration of this article has of late years deterred foreign merchants from dealing in it, and the trade has passed largely into the hands of Chinese.

TURKEY IN ASIA.

The Aleppo Opium Trade.

The quantity of opium exported from the town of Aleppo to ports in Europe was, in 1890, more than 42,500 kilos., 80 per cent. of this quantity being destined for England, and the remainder for France, Austria, and Germany. It is mostly produced at Nezile, a small town to the north-east of Aleppo, and sold in little paper packets in the bazaars of that city.

Scammony.

Scammony, which is obtained from a species of convolvulus or creeping plant, is found in considerable quantities in the neighbourhood of Aleppo and other towns of Northern Syria. In the month of July or August, an incision is made into the roots, from which a milky juice exudes, and this is gathered in shells, and emptied from these into large earthenware pots, exposed alternately to the sun and to the wind, with a view to rendering the product dry and saleable. During the operation, foreign substances are frequently found mixed with the juice, and this has the effect of considerably modifying the price. On account of the losses sustained by many purchasers who have received inferior scammony from the merchants in Syria, very little trade is now carried on in this gum resin with Europe, except in consignment. The exports of superior scammony effected through the port of Alexandretta, in 1890, amounted to 1,500 kilogrammes (kilogramme = 2.204 lbs. avoirdupois); and the whole of this quantity was consigned to various firms engaged in the drug trade in France, England, Germany, and Italy. The scammony in Italy is forwarded in drums, weighing from 75 to 125 pounds each, and that from Smyrna, in cakes like wax, packed in chests. A considerable trade is also carried on in scammony roots, which are collected in September and October, dried on the spot, and then delivered to the trade. In 1890, the quantity of roots exported from Alexandretta amounted to 175,000 kilogrammes, the half of which was consigned to France, and the remainder to England, in transit for America. Prices have varied during the year between 45 and 50 francs the 100 kilogrammes, free on board.

MURDER OF A PHARMACIST IN HUNGARY.—Apotheker A. Szekitsák, who had recently sold his business at Szered-on-the-Waag, in Hungary, has been missing since August 8. On August 22 his decomposed body was found lying in the courtyard of an hotel at Also-Csöppeng, where he was last seen alive on the day of his disappearance. The body showed that the apotheker had been assassinated. There is no clue to the murderer.



Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, September 10.

WE have to report a very quiet week in the drug and chemical markets, broken only by a wave of excitement in the shellac market, in consequence of the report that a large quantity of that gum has been destroyed by fire in America. In the drug department Senega root, caraway seed, Russian anise, and oils of peppermint, and sassafras are dearer; but for camomiles and oil of lemon lower prices would be accepted. In the chemical section, citric and tartaric acids, cream of tartar, and quinine are lower. Sugar of lead has advanced somewhat owing to the rise in alcohol, Japan wax and sticklac are also dearer, and soda crystals have been advanced in price. Several spices realise an advance.

RULES OF LEGAL PROCEDURE AGAINST FOREIGN FIRMS.—Some new rules of court have just received the sanction of the Lord Chancellor which will prove of great importance to commercial firms. They lay down the rules to be observed in regard to bringing actions against foreign firms, which have hitherto, owing to conflicting opinion, been of much difficulty and very perplexing. There have always been two very pronounced difficulties—viz., whether the firm should be sued in the name of the firm or in the names of the partners and whether the writ should be served upon the partners in this country, or on one partner only, or all the partners. As a consequence it frequently happens that foreign firms, either carrying on business by a branch in this country, or having their businesses wholly abroad, but making a contract here, either wholly escaped or forced their British creditors to go to a foreign country for redress. This has been entirely removed, for it has been decided that those partners who happen to be in this country can be sued, and that if there is a branch of the firm here a summons or writ must be served in the name of the firm, and at their office, to anyone who appears to be in authority there.

A MONSTER FIND OF "AMBERGRIS."—Some excitement was caused on the wharf at Hobart, Tasmania, on July 29 last, when it became known that a fisherman from Recherche, named Louis Smith, a man of colour, had brought to town between 180 lbs. and 200 lbs. of ambergris. The treasure was in the stern of Smith's boat, carefully covered over with sacking and tarpaulin. There certainly was not very much to look at when the coverings were lifted, but speculation ran high on the wharf as to its true value. Old whalers, and those who professed to know, estimated it as worth 10,000*l.*, and some thought as many shillings. The piece is, roughly speaking, about 22 inches square, smells somewhat like guano, and resembles sepia in colour. Smith says that the whale from which he obtained it was about an "eight tanner," and had been captured and "tried out" by the *Waterwitch* on Sunday, July 19, and that it was of the spermaceti kind. To obtain the ambergris Smith had to cut a large hole in the throat, and make his way to that part of the whale's intestines where such deposits are usually found. Several offers were made on the spot for the ambergris as it stood, but Smith firmly declined them all, and eventually procured a strong box, in which it was deposited and sealed, and placed in the keeping of the Commercial Bank. Per-

haps it would have been better for Smith if he had closed with the top offer on the spot. The ambergris is not likely to be of the kind now so scarce, and the knowledge of the existence of a 200-lb. block would certainly not tend to impart additional buoyancy to the market.

JAMAICA CINCHONA.—A small consignment of cinchona from a private plantation in Jamaica was offered at this week's bark sales. This is the first shipment from that island that has been put up for auction this year. The total weight of it was only 67 lbs., and if the offer had been accepted that was made for it, the total would have realised about 17s. As freights are high from Jamaica, and no less than 14s. 6d. carriage was paid for this little lot, cinchona-growing in Jamaica does not seem to be an industry of much promise.

OUR TRADE WITH THE UNITED STATES.—The following figures furnish some indication as to the extent to which the trade of the United Kingdom with the United States has been influenced by the imposition of the McKinley Tariff ('000's are omitted):—

	Entered			Cleared		
	1889	1890	1891	1889	1890	1891
Tonnage between U.K. and U.S. Jan. 1 to June 30	2,535	3,067	2,495	1,564	1,657	1,612
Ditto, in July ..	485	432	411	262	301	318

	Exported		
	1889	1890	1891
Value of British Merchandise exported from Jan. 1 to June 30 ..	£ 14,948	£ 15,722	£ 15,246
Value of 45 articles specified in the Trade Returns.			
In 6 months to July ..	13,459	14,648	13,824
In July alone	2,180	2,784	1,722

These figures show that the export trade of the whole period in 1891 does not show to any great disadvantage compared with the corresponding months in 1890, and that it shows an increase over 1889. But in July, while the exports increased in 1890 by 27.5 per cent., they decreased in 1891 by 38.1 per cent. below 1890, and 21.3 per cent. below 1889. The decrease accounts for 1,032,000l. out of the 2,376,000l. by which the total value of British exports fell short in the past month; but there was an increased export of foreign and colonial wool, and the tonnage outwards was greater than in 1890, and much greater—21.3 per cent.—than in 1889.

ACID (CITRIC).—The market still continues to decline and, in spite of the reappearance of summer weather, the quotations close lower this week than last. To-day's price may be put at 1s. 5½d. to 1s. 6d. per lb. Juice is offering from Messina at 20l. 10s., f.o.b. for shipment over next season, December included; but we hear of even lower prices—say 19l.—f.o.b. for shipment commencing in January. We understand that unusually heavy shipments of citric acid have lately been made to Australia. One steamer took 60 1-cwt. kegs, which is quite an exceptional consignment, tartaric acid having hitherto been mostly shipped to the Australian colonies.

ACID (TARTARIC).—Dull and easier at 1s. 1½d. to 1s. 1¾d. per lb. according to brand. We hear that the German syndicate have reduced their quotation from 1s. 2d. to 1s. 1½d. per lb.

ANISE.—Russian seed has advanced owing to the scarcity of this season's crop. On the spot the market is practically bare, but for October delivery from 19s. to 20s. per cwt. is quoted.

ARECA NUTS have been very scarce lately. A parcel of 47 packages has, however, arrived this week.

CALABAR BEANS.—During the week further supplies of about 60 bags sold by auction in Liverpool at 3d. per lb.

CARAWAY SEED is dearer. At this week's spice auctions a parcel of 230 bags Dutch seed was partly disposed of at 23s. per cwt. for good quality old crop, "without reserve." The market quotations are: Fine new crop, 19s. to 20s.; 1890 crop, 21s.; and 1889 crop, 23s. per cwt.

CASCARA SAGRADA.—Some further business was done this week at 25s. per cwt., but the cheap stock seems to have been exhausted thereby, and 27s. to 27s. 6d. per cwt. is now spoken of as the nearest value. It is said that there will be no more consignments from San Francisco to London.

CHAMOMILES.—The fine weather has caused some accumulation of stock in Belgium, and offers from that quarter have come down with a run from 7l. to 5l. 10s. per cwt., at which latter price orders were solicited on 'Change to-day. But it is believed that this decline is likely to be only temporary, as there is no doubt that the crop will be small, and owing to the lateness of the harvest the second crop cannot amount to much. The last quotation for best French chamomiles—a few days ago—was 9l. 18s. per cwt.

CHILLIES.—Prices remain unchanged since the recent decline. At auction 60 bales Zanzibar sold at 32s. to 35s. per cwt. for medium to fair.

CINCHONA.—At bark sales on Tuesday a very small quantity of cinchona bark was offered—in fact the auction was one of the smallest on record. The catalogue comprised, of—

	Packages	Packages	
Ceylon bark	639	of which 544 were sold	
East Indian bark ..	403	" 393	"
South American bark ..	116	" —	"
Jamaica bark	2	" —	"
Total	1,160	" 932	"

With the exception of a few parcels of Indian Crown bark, there were very few lots of good quality among the barks of Eastern growth. The supply of South American Calisaya also comprised some rich parcels, but all of this was limited too highly, and not a single bale of this kind was sold. There was a fair amount of competition, and the unit remained stationary at an average of 1½d. per cwt.

The following are the approximate quantities purchased by the principal buyers:—

Agents for the Mannheim and Amsterdam works	Lbs.
Brunswick factory	75,378
Italian and American works	35,021
Frankfort o/M. and Stuttgart works ..	29,176
Auerbach works	24,172
Messrs. Howards & Sons	12,103
Other manufacturers	8,367
Sundry druggists, &c.	5,588
Total quantity of bark sold	189,903
Bought in or withdrawn	46,967
Total quantity offered	236,770

An analysis of the catalogues shows that the following prices were paid for sound bark:—

CEYLON CINCHONA.—*Original.*—Red varieties: Ordinary dull to good bright quilly chips, 1½d. to 3½d.; fair spokeshavings, 2½d.; ordinary weak, and damaged quill, 1½d. to 2d.; fair to good stout silvery druggists' quill, 2½d. to 5d.; ordinary to fair but dusty root, 1½d. to 2½d. per lb. Grey varieties: Dull to good bright quilly chips, 2d. to 3d.; fair chips and shavings mixed, 2½d. to 4d. per lb.; bold quilly yellow chips, 4½d. to 5d. per lb. *Renewed.*—Fair quilly red chips, 2d. to 3d.; yellow ditto, 6½d. per lb.

EAST INDIAN CINCHONA.—*Original.*—Red varieties: Ordinary dull to fair quilly chips, 1½d. to 3d.; fair bright spokeshavings, 1½d. to 2d.; chips and shavings mixed, 2½d.

per lb. Grey varieties: Rather woody and dusty to good bright quilly chips, 2*d.* to 3*d.*; fine bright small spoke-shavings, 3½*d.* to 5½*d.*; chips and shavings, 4½*d.* to 5*d.*; small twigs, 1½*d.*; dull pale root, 4*d.* to 4½*d.* per lb. Yellow varieties: Good quilly branch and stem chips, 3½*d.* to 4½*d.*; fine bright shavings, 5*d.* per lb. Hybrid branch chips, 2*d.* per lb. *Renewed*: Red chips, 3½*d.*; grey chips, dusty to quilly, 4½*d.* per lb.

JAMAICA CINCHONA.—For 2 packages partly damaged red druggists' quills, fairly good stout mixed, an offer of 3*d.* per lb. was refused. The stock of cinchona in London on September 1 is returned as follows:—Yellow, flat and quill Calisaya, 6,257 bales; crown and grey barks, 1,637; red bark, 64; soft Columbian, New Granadian, Pitayo, Cuprea, 17,009; Carthagena, 1,093; Ceylon, East Indian, and Java bark, 24,188 bales.

At the last Amsterdam auctions, which were held on the 3rd inst., 248,700 kilos. bark were offered. Of this quantity manufacturers purchased 192,812 kilos., equalling 8,995 kilos. (317,254 oz.) quinine sulphate. Sundry druggists bought 20,784 kilos. bark, and 35,180 kilos., representing 1,448 kilos. sulphate of quinine, remained unsold. The following were the purchases of the principal buyers:—Auerbach factory, 58,190 kilos. bark; Powers & Weightman, 48,884 kilos.; Brunswick works, 37,775 kilos.; Böhringer & Sons, 15,066 kilos.; Frankfort & Stuttgart works, 14,142 kilos.; Taillandier, 10,829 kilos.; Howards & Sons, 1,474 kilos.; and various buyers, 6,462 kilos. bark.

CREAM OF TARTAR.—This article shows a decline in value. Good white French crystals can now be bought at 95*s.* to 95*s.* 6*d.* per cwt.

CUBEBS.—The market is firm. The price is 9*l.* 10*s.* for good berries, free from stalk; and 9*l.* per cwt. for second quality.

ERGOT OF RYE.—Spanish ergot is quoted at 1*s.* 5*d.* per lb. this week. The quotations for Russian ergot vary; from one quarter 1*s.* 6*d.* c.i.f. is mentioned and from another 1*s.* 4*d.* c.i.f. Our information concerning the exceptional abundance and size of ergot in this season's rye is fully confirmed by news which reaches us from various parts of the Continent.

GINGER.—In Liverpool sales of African ginger have been made at 24*s.* 6*d.* per cwt. *Jamaica* ginger remains slow of sale, good common to bright medium washed selling at 47*s.* to 53*s.* 6*d.* per cwt. A parcel of 20 cases medium rough old Cochin sold at 31*s.* per cwt. at the spice auctions.

GLYCERINE steady, but without much animation. The manufacturers quote varying prices, up to 60*l.* per ton for double-distilled s.g. 1,260, but second holders are still in the market at 54*l.*, and even less.

HONEY.—Finest white *Chilian* realises 44*s.* per cwt. yellow to fair thick pale is held for 30*s.* to 40*s.* per cwt. Honey of the new *Californian* crop is offering at 43*s.* per cwt., c.i.f. Liverpool by sailer from San Francisco, for good white, and 39*s.* per cwt., same terms, for amber. Fine grades are said to be somewhat scarce.

INDIARUBBER.—The value of fine Pará rubber stands at 2*s.* 8*d.* per lb., with a quiet market.

METHYLATED SPIRIT.—Our quotation of last week has been challenged as inaccurate, and it is stated that "in February, 1891, the Methylated Spirit Association advanced the price of methylated spirit 2*d.* per gallon, making it for 64 o.p., 2*s.* 8*d.* per gallon; 61, 2*s.* 7*d.* per gallon; methylated finish, 1*d.* per gallon extra. An advance on these prices is very probable, owing to rise in alcohol, the damaged barley crops, and the rising price of miscible naphtha." We can only say that whatever the price of the M.S.A. may be the article was offering last week, and is so still, at the figure we named—viz., 2*s.* 5*d.* per gallon for large contracts, and 2*s.* 6*d.* for smaller quantities.

NUTMEGS.—The demand for this spice continues, and at the weekly auctions 96 out of the 114 packages offered sold at an advance on all varieties. The demand is greatest for West Indian nutmegs. The following prices were paid:—West Indian (mostly Grenada), fine, 62 to 65 at 3*s.* 4*d.* to 3*s.* 2*d.*, 72 to 89 at 2*s.* 10*d.* to 2*s.* 8*d.*, 97 to 137 at 2*s.* 7*d.* to 2*s.* 3*d.* per lb.; long and long and round mixed at 2*s.* 2*d.* to 2*s.* 9*d.* per lb. Wormy and broken *Bombay* at 8½*d.* to 11*d.*

per lb. Penang and Singapore (67 to 86) at 3*s.* 1*d.* to 2*s.* 9*d.*; small and shrivelled at 1*s.* 5½*d.* to 1*s.* 9*d.* per lb.

OIL (COD-LIVER).—The market is steady. For new, non-freezing oil, 80*s.* per harrel is wanted, and for old, 70*s.*

OILS (ESSENTIAL).—We hear that the new season's crop of Italian oil of *lemon* is offering at lower prices, a telegram received to day offering for forward delivery (the crop is due towards the close of the year) at 7*s.* per lb., f.o.b. Messina, while for current delivery 8*s.* per lb., f.o.b. is asked. *Bergamot* oil is unaltered, nor is there any change in *Otto of Rose*. We comment elsewhere upon the Mitcham crops. We understand that the new season's oil of *Peppermint* is offering at 32*s.* per lb. to-day, though most of the holders require 35*s.* per lb. American oil of peppermint is very firm at the other side. A New York report, dated August 28, states that the new crop is being distilled in Wayne County, and is turning out shorter than at first estimated. In Michigan the yield will be below the average, but a fair supply of oil will be marketed from this section. Up to the present no trading in the new crop has taken place; the growers are demanding 11*s.* 6*d.* in Wayne Co. for the naked oil, but there is no demand whatever; dealers here refuse even to make bids, and are themselves waiting for offers from abroad. Unless a good demand springs up for export, the farmers will have to come down in their pretensions in spite of the short crop. Should the condition of stocks in Europe lead to a heavy demand, there can be little doubt that we would see a rapid advance. After a long period of neglect a good demand from England has been experienced for the H. G. H. brand, and the market is higher, but is still below what the position of bulk oil would warrant. This brand is practically under the control of the firm that used to "bear" it so remorselessly in former years, and it is expected that lively times will be witnessed later in the year. *Sassafras* oil has advanced here this week from 1*s.* 8*d.* to 1*s.* 10*d.* per lb. New York offered last week at 1*s.* 8*d.* to 1*s.* 8½*d.* per lb., c.i.f. terms. *Star-anise* is quoted at 6*s.* 4*d.* per lb. on the spot. For arrival a fair quantity sold at 5*s.* 10*d.* per lb., c.i.f. terms, towards the close of last week.

OPIMUM.—The London market remains very firm indeed, and a fair amount of business is taking place for manufacturing; but the shipping trade appears to be almost at a standstill. Fine shipping grades are held for 10*s.* to 10*s.* 3*d.* per lb., manufacturing opium at 8*s.* to 8*s.* 6*d.*, and Persian, according to quality, from 10*s.* per lb. for blocks to 12*s.* for fine cakes. We have heard it stated, though we have not heard the rumour confirmed, that the sale of opium in South America has been secured by a local syndicate, who import direct from Turkey instead of filling their requirements in London. From Smyrna we hear that the market has been further strengthened by the fact that on September 1 the Dutch Government would contract for Turkey opium to the extent of 500 cases. Consequently, two or three of our regular sellers to the Government commenced buying selected Karahissar opium suitable for the purpose required at 8*s.* 9*d.*, and ran it up to 10*s.* per lb., f.o.b. It will take some time before a reaction takes place. Last year a similar state of things existed, but when the contracts with the Government were concluded, buyers acted with caution, and a rapid decline set in, and which will, doubtless, be again the case this year. In the meantime, all legitimate business is at a standstill, for, with the exception of about 150 cases of Karahissar opium which have been taken bitberto against the 500 for the Dutch Government, there is now very little doing, with the exception of a few cases of manufacturing opium bought by native merchants on speculation, and some forced operations on the part of those who had sold for forward delivery.

ORRIS.—Fine Florentine orris may be had at 110*s.* per cwt. From Italy we hear that the new Florentine root has not yet arrived upon the market, but all accounts agree that the crop will be very small, and the prices asked are extravagantly high. Under these conditions exceptional attention is being directed to Verona root, of which the new crop is already available at prices ranging from 45*s.* for low to 67*s.* per cwt., f.o.b. Leghorn, for best quality.

PIMENTO is again dearer. At the auctions, on Wednesday, the entire small supply of 375 bags was disposed of at

2½d. to 2¼d. per lb. for fair medium to good clean, showing an advance of ¼d. per lb.

QUICKSILVER.—On Monday the principal importers renounced their quotation from 7l. 10s. to 7l. 5s. per bottle.

QUILLAIA.—Several transactions are reported from Liverpool at the rate of 29l. 10s. per ton for fair quality on the spot, but 30l. per ton is now the current quotation. It is stated that sales were made at 33l. per ton in London this week, and that Liverpool cannot now sell below 32l.

QUININE.—No transactions of any importance are reported, and the market continues in a very depressed condition, with sellers of German brands in bulk at 9¾d. per oz., but no buyers. The following are to-day's quotations from the manufacturers:—Howards & Sons, 1s. 2d. to 1s. 3d. in tins; 1s. 3d. to 1s. 4d. in 1-oz. vials; Thomas Whiffen, 1s. 1d. in tins; 1s. 3d. in 1-oz. vials; Brunswick, 1s. in tins; Mannheim, 1s. in tins; Auerbach, 1s. in tins; Zimmer and Jobst, 1s. in tins; Milan, 1s. in tins; 1s. 2d. in 1-oz. vials; Pelletiers, 1s. in 1-oz. vials.

SAFFRON is rather dull of sale. The price of fine Valencia is from 34s. to 35s. per lb. at present.

SENEGA.—This root has received some attention from buyers this week, and it is said that nothing is now procurable below 1s. 8d. per lb.—an advance of about 1d. per lb. since last week. The latest American advices concerning this drug state that the new crop is offering freely and promises to be larger than usual. Some business has been done at the parity of 1s. 6d. per lb., c.i.f. terms, but buyers will no longer pay as much as that. Minnesota root is quoted at 1s. 6d. to 1s. 6½d.; dark Manitoba at 1s. 4½d. to 1s. 5d. per lb., c.i.f. terms.

SHELLAC.—The market opened very quietly this week, and was altogether without animation either on the spot or for delivery. The tendency was rather firm than otherwise, but orders were still very few. At the public sale on Tuesday 912 cases were offered, of which 245, mostly odd lots, sold at a decline of about 1s. per cwt. on *button lac*, *orange* realising the same rates as at the preceding sale. The bulk of the supply is held for high prices, and most of the holders did not seem at all anxious to sell. The following prices were paid:—*Orange*, fine lemon-coloured, but blocky, unworked, 88s.; fair to good bright seconds, unworked, 85s. to 88s.; worked and unworked, ordinary to reddish ditto, 82s. to 84s. per cwt. *Garnet*, bronze, unworked, 84s.; cakey to good free A.C., 82s. to 84s. per cwt. *Button*, fair worked firsts, 89s.; unworked seconds and thirds, 83s. to 84s.; common dark, mixed with resin, 62s. per cwt. For orange TN, October delivery, 91s. has been paid privately. On August 18 the Calcutta market was dull; but holders were by no means downcast, and there was a strong feeling that a rise in prices was only a question of a few weeks. During the last two days more business has been done, and sales of TN second orange at 85s. net, and AC garnet lac at 83s. per cwt. are reported on the spot, while the business for delivery has been limited to a few transactions, including 200 cases orange TN at 89s. per cwt. for October delivery. The aspect of the market was changed altogether to-day by the publication of a telegram from New York running as follows:—"A fire in R. C. Clayton's warehouse in South Street, on Tuesday, caused the loss of 7,000 cases of shellac, which was half the stock in the country. The stock was already short and the loss has created a corner." The news was evidently known to a few interested parties before the arrival of this telegram, as the market had already advanced considerably. Since its publication, however, a large speculative business has taken place, about 1,500 cases changing hands, mostly on the spot, at 85s. to 88s. for second *orange*, 83s. to 84s. per cwt., net, for AC *garnet*, and up to 92s. per cwt. for orange TN, October delivery, of which there are buyers at the close at 93s. per cwt.

STICKLAC is firm. There have been sales of good *Siam* at 70s. per cwt., and there were further buyers at that price a few days ago.

SUGAR OF LEAD.—Prices are advancing, and there is a prospect of further increase, owing to the rise in alcohol. Best white is quoted at 26s. 6d. per cwt. on the spot, and 25s. 6d. to 25s. 9d. per cwt., c.i.f. terms. Brown acetate of lead is worth 19s. 6d. per cwt. on the spot.

TEA.—The China market remains quiet, and lowest sorts of Congou are inclined to be easier, with new and old leaf-tea selling at 5½d. per lb. Fine Ningchows continue very cheap, and, if a fair shipping demand were but to develop, prices for some of the really fine teas, selling from 10d. to 1s. 3d., would advance by leaps and bounds. Green teas are now coming in more freely, and selling at reasonable rates. Scented teas are steady, commonest selling at 6½d. per lb. in sale on Tuesday. Telegraphic advices from Calcutta report very heavy shipments of Indian teas, considerably in excess of last year. With heavy stocks there is a general feeling that we may see lower prices ere long for common teas, and prices are easier this week in anticipation. Some good new Pekoes may now be bought 10d. to 1s. 1d., with strong liquors and really useful blending teas. Common Sonchongs are selling as low as 6½d., but are very undesirable. Ceylons are unchanged, but a good trade is being done in teas under 10d., and retailers will not be far wrong in buying a little beyond their immediate requirements.

WAX (JAPAN) is in somewhat better request at 42s. to 42s. 6d. per cwt. for good pale squares, with business at those rates.

CHEMICALS IN THE NORTH OF ENGLAND.

THE principal feature in the Newcastle chemical market this week is the further advance made in the price of soda crystals, which continue in good command.

In Liverpool a fair inquiry is met with, and prices continue firm, with the exception of sulphate of copper, which is again lower.

The shipments of chemicals from the Tyne continue to show a falling off in quantity as will be seen from the following return of exports to British possessions and foreign countries during last month, compared with the same period of 1890, the total decrease being equal to about 3½ per cent.

	1891	1890
	Tons	Tons
Alkali and soda ash	1,043	1,538
Bicarbonate of soda	2	6
Bleach powder	1,285	2,018
Manure	4,258	3,612
Soda crystals	564	940
Sulphate of soda	40	64
Caustic soda	659	810
Other chemicals	1,547	823
Total	9,473	9,811

BICARBONATE OF SODA.—Quiet at 6l. 15s. to 7l. per ton, less 2½ per cent. discount, packed in 1-cwt. kegs, f.o.b. Liverpool.

BLEACHING POWDER.—Firm at 7l. 5s. per ton in softwood casks, and 7l. 10s. per ton in hardwood casks, f.o.b. Tyne. Liverpool prices, 7l. 2s. 6d. per ton on rails at makers' works, and 7l. 5s. per ton f.o.b. Liverpool in softwood casks, hardwood casks being quoted 5s. per ton extra for all orders excepting American, which are quoted 10s. per ton extra. These prices are net, and for this month's delivery.

CAUSTIC SODA.—Steady at 12l. 5s. per ton for 77-per cent., and 11l. per ton for 70-per cent., f.o.b. Tyne: 74-per cent. 11l. 15s. per ton; 70-per cent. 10l. 15s. per ton; 60-per cent. 9l. 10s. per ton; and cream 60-62-per cent. 9l. 5s. per ton, f.o.b. Liverpool net cash, with an allowance of 2s. 6d. a ton if delivery is taken on rails at makers' works.

CHLORATE OF POTASH.—Firm at 5¾d. per lb., less 5 per cent., f.o.b. Liverpool; and 5½d. per lb., less 6 per cent. f.o.b. Tyne.

HYPOSULPHITE OF SODA.—Quiet at 7l. per ton in cask and 7l. 10s. per ton in kegs, net cash, f.o.b. Tyne, in 10 to parcels; 7l. 10s. and 8l. per ton, c.i.f. Liverpool; and 7l. 12s. 6d. and 8l. 2s. 6d. per ton delivered Manchester.

SODA CRYSTALS in good demand. Tyneside prices have advanced to 3l. per ton in casks, gross weight, and 3 per ton in bags, net weight, f.o.b. Tyne; 3l. to 3l. 5s. per ton

in bgs, and 3*l*. 5*s*. to 3*l*. 10*s*. per ton in casks, both net weight, f.o.b. Liverpool.

SULPHATE OF COPPER flat, at 14*l*. 10*s*. per ton quoted for prompt delivery, f.o.b. Liverpool, with higher prices being asked for forward delivery.

MISCELLANEOUS CHEMICALS—Alum (lump), 5*l*. 3*s*. 9*d*. to 5*l*. 6*s*. 3*d*. per ton, f.o.b. Liverpool; aluminate of soda, 33*l*. 15*s*. per ton, f.o.b. Tyne; bichromate of soda, 2*l*. 3*d*. per lb., and bichromate of potash, 3*l*. 3*d*. per lb., both less 8 per cent., f.o.b. Liverpool; blanc fixe, 7*l*. 10*s*. per ton, f.o.b. Tyne; borax, powdered, 29*l*. 10*s*. per ton; crystal, 28*l*. 10*s*. per ton, f.o.b. Liverpool; carbonate of alumina, 28*l*. 15*s*. per ton, f.o.b. Tyne; chloride of barium, 7*l*. 15*s*. per ton, f.o.b. Tyne; chloride of calcium, 2*l*. 5*s*. to 2*l*. 7*s*. 6*d*. per ton in drums, and 2*l*. 10*s*. to 2*l*. 12*s*. 6*d*. per ton in casks, f.o.b. Liverpool; Glauber salts, 2*l*. 10*s*. per ton in casks, f.o.b. Liverpool; hydrate of barium, 11*l*. per ton, f.o.b. Tyne; nitrate of baryta, crystals, 19*l*. 10*s*. per ton, and ground, 20*l*. per ton, f.o.b. Tyne; nitrate of soda, 8*l*. 17*s*. 6*d*. to 9*l*. per ton, f.o.b. Liverpool; pearl-hardening, 4*l*. per ton, f.o.b. Liverpool, and 3*l*. 10*s*. per ton f.o.b. Tyne; refined white alkali, 36-per-cent., 1*l*. 3*d*. per degree net; 48-52-per-cent., 1*l*. 3*d*. per degree, less 5 per cent., f.o.b. Tyne; sal-ammoniac, 35*s* and 33*s*. per cwt. for first and second qualities, f.o.b. Liverpool; silicate of soda, 140 Tw, 4*l*. 5*s*. per ton; 100 Tw, 3*l*. 15*s*. per ton; 75-per-cent., 2*l*. 15*s*. per ton, f.o.b. Tyne; prussiate of potash, 10*l*. 5*s*. per lb., f.o.b. Liverpool; sulphate of alumina, 5*l*. 5*s*. per ton in bags, and 5*l*. 10*s*. per ton in casks, f.o.b. Liverpool, and 4*l*. 15*s*. per ton, f.o.b. Tyne; sulphate of ammonia, 10*l*. 15*s*. to 10*l*. 17*s*. 6*d*. per ton for 24-per-cent., and 11*l*. 2*s*. 6*d*. to 11*l*. 5*s*. per ton for 25-per-cent. f.o.b. Liverpool; sulphide of barium, 5*l*. 10*s*. per ton, f.o.b. Tyne; sulphur (recovered), 6*l*. per ton, in bags, f.o.b. Tyne and Liverpool.

THE CROP OF COTTON-SEED OIL.

THE *Oil, Paint, and Drug Reporter* has gathered information from various sources upon the coming crop of cotton-seed oil in the United States, with the following result:—

The crop is this year somewhat later than last season, but will prove fully as large, and the condition of the seed promises to be better, thus insuring a better average quality of oil. The product of the seed harvested last year was not so good as theretofore, and the result was that but a comparatively small proportion of the oil produced could be classed as strictly prime. Thence followed the distinction "season's prime," and to this was also due the determination of buyers to submit samples to chemical analysis to determine the percentage of free fatty acid, as appearances, taste, colour, and other physical tests were insufficient. This year there is good grounds for the belief that the product will be fully up to the average in previous years, and, the crop promising to be large, prices may be expected to show no abnormal fluctuations. The market value of new oil is not yet fixed, although sales have already been effected for September and October delivery at prices showing no material difference from those realised at the opening of the season last year.

The crushers throughout the South have been putting their plants in readiness to work up the seed, and it is the general belief that the approaching season will prove a satisfactory one, although one of the by-products—linters—will not realise so much as formerly. Millers in Charleston district have held convention and pooled their issues to the extent of agreeing to send their crude oil to a refinery there and receiving the refined product, less the toll. Considerable enthusiasm was shown, and the success of the new departure was regarded as assured, although an actual test only can determine its practicability and value.

The sales during the second half of August, both for export and home consumption, have been unusually large; but there is no probability of a scarcity before new oil becomes available, and the market does not appear to be influenced by the approach of the new season. Prices, therefore, are not expected to show abnormal variations unless some unusual and entirely unexpected demand should be developed, of which there is no indication.

LONDON DRUG STATISTICS.

THE following figures refer to the stocks of drugs in the port of London on August 31, 1891 and 1890, and to the imports and deliveries during the first eight months of the same years.

Article	Stocks		Imported		Delivered	
	1891	1890	1891	1890	1891	1890
Aloes ..os & pkgs	7 476	9 f65	1,458	5 287	3,717	3,960
.....gourds	1,249	9 7	315	175	241	532
Anise, star.....chts	98	55	425	14	374	30
Arrowroot ..cks	6 312	11 849	10,747	11,519	11,319	10,941
bxs & tins	1,576	3,001	690	246	1,249	3 359
Balsams ..cks, & o.	2,248	2,489	1,129	625	1,449	580
Bark (Cinchona),						
S.American cases	383	408	21	9	45	63
bls, & c.	25,963	27,006	7,831	5,119	8 059	10,138
E.I., Ceylon, and						
Java ..cks	319	459	496	382	450	323
bls, & c.	24,447	26,116	30,237	30,594	30,664	28 953
Borax ..cks	261	261	55	21	55	236
Calumba	715	1,209	123	193	717	611
Camphor	5,611	6,223	7,344	12,336	7,330	5,446
Cardamoms ..chts	470	1 0 9	1 396	2,102	1,547	2,366
Cococ. Ind. bgs, & c.	552	4 9	483	786	156	519
Cream of Tartar cks	16	25	16	76	23	61
Cubebs ..cks	90	41	106	71	219	339
Dragon's Blood cks	111	134	123	124	113	114
Galls, China, & c. os	2,266	4,118	1,331	5,000	1,566	1,851
Tiky & Pran. cks	4,064	6 725	8,010	7,300	7,440	4,353
Gums—						
Ammoniac pkgs	49	63	15	6	29	34
Animi & Copal						
pkgs	5,232	7,750	8,123	6,491	11,330	8 392
Arabio.	15,310	18,815	16,538	17,473	17,058	20,494
Asafetida.	693	463	38	217	172	222
Benzoin	3,072	2,286	2,790	2,410	2,238	2,217
Damar	6,042	7,167	2,693	6,670	4,239	4,198
Galbanum	34	34	39	24	35	24
Gamboge	42	75	170	208	158	195
Guaiacum	163	19	241	33	207	33
Kino ..cks	10	48	14	7	37	93
Kowrie ..cks	1,160	857	2,422	1,444	1,999	1,493
Mastic ..cks	32	11	40	2	26	18
Myrrh ..cks	441	451	531	346	512	337
Olibanum	6,175	6,612	6,711	7,9 7	4,928	5, 64
Sandalac ..cks	491	550	1,057	1,112	769	931
Tragacanth ..cks	4 928	6 219	4,656	4,164	5,062	5,335
Guttapercha ..cks	2,313	2,089	1,792	2,124	1,342	1,535
Indiarubber, E.I. tns	362	140	750	466	614	573
Madagascar ..cks	122	6	21	116	190	142
S. American ..cks	83	36	164	150	134	155
African, & c.	291	232	301	567	195	6 6
Ipecac. cks & bgs	275	278	767	946	763	860
Jalap ..cks	72	106	179	70	217	35
Lao Dye ..chts	5,032	6,330	—	—	62	369
Myrabolans ..cks	2,553	3,752	6,255	8,975	5,363	9, 54
Nux Vomica pkgs	632	463	1,241	4,854	1,157	4,657
Oils—						
Anise ..cks	67	20	151	70	86	143
Cassia ..cks	91	3	126	280	150	307
Castor ..cks	137	142	530	1,086	549	1,155
.....os	3,294	2,515	5,755	4,590	4,318	5,293
Cocoa-nut ..cks	2,478	891	4,667	2,701	3,349	4,324
Olive ..cks, & o.	1,213	1,619	3,351	5,027	2,783	4,189
Palm ..cks	3	6	34	36	38	50
Rhubarb ..chts	503	712	628	581	965	1,511
Safflower ..bls, & o.	278	384	—	95	97	171
Sarsaparilla ..bls	190	168	648	879	765	889
Senna ..bls, & c.	2,836	2,291	1,681	2,667	2,756	3,527
Shellac, Orange						
chts, & c.	25,740	31,855	17,267	15,769	27,545	2, 744
Garnet ..cks	3,126	7,100	5,446	4,353	6,361	7,145
Button ..cks	6,186	5,092	8,155	5,129	7,465	6,191
Total ..cks, & o.	35,652	47,047	30,868	25,251	41,371	35,683
Sticklac ..chts, & o.	628	2,157	200	20	1,842	909
Gambier ..cks	569	340	6,432	6,540	6,377	6,856
Cutch ..cks	2,879	2,529	1,665	1,177	1,700	1,252
Turmeric, Beng. tns	710	1,090	—	26	442	329
Madras, & c.	151	846	49	172	394	480
Total ..cks	861	1,938	49	198	836	809
Vermilion, cks, & c.	23	43	100	125	112	101
Wax, bees' ..bls & c.	1,505	881	2,540	3,668	1,879	3,518
.....os	830	1,092	1,144	1,851	1,179	1,688
cks & os	14	14	6	68	16	78
Japan ..pkgs	464	1,398	76	481	794	728

* Stock of aniseed and cassia oils lying at Smith's wharf and Brewers' quay are not included in this return.

Correspondence

Memoranda for Correspondents.

Always send your proper name and address; we do not publish them unless you wish: if you do not, please use a distictive non-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulae consult the last volume, if you have it.

Letters, queries, &c., will be attended to in the order received.

Irish Pharmacutical Society.

SIR,—My attention has been called to a circular issued by the Vice-President of the Pharmaceutical Society here, in which associates are referred to in anything but respectful and complimentary terms.

May I ask the members of the Council, and also the members of the Society, whether a gentleman occupying the position of Vice-President, who is supposed to be impartial, is fit to occupy such a position if he cannot refrain from showing his partiality for one section and his contempt for another of those over whom he presides?

12 Grafton Street, Dublin,
September 1.

Yours truly,
JOSIAH R. MIDDLETON,
Registered Druggist.

[The circular alluded to appears to us to be a perfectly fair and legitimate one. There is no word of contempt for the druggist section of the Pharmaceutical Society from beginning to end. Mr. Wells, indeed, manifests, by the issue of the circular, a perhaps exaggerated respect for his opponent-colleagues. He points out that the "associate druggists" of the Society are using great efforts, not only to elect their permitted seven special representatives on the Council, but also to have among the other fourteen, who must be pharmaceutical chemists, a majority favourable to their views. To counteract this influence, Mr. Wells asks pharmaceutical chemists who are of his way of thinking to join the Society as members, so as to maintain the old order. That Mr. Wells is a vigorous partisan none of his friends will deny; but, as far as we know, and certainly in the matter of this circular, he fights fairly.—ED. C. & D.]

Colouring of Green Peas with Copper.

SIR,—Now that prosecutions for selling peas coloured with copper are again rife, it may not be out of place to call attention to the investigation which was made as long since as 1877 respecting this subject by Dr. B. H. Paul and myself. The paper was read before the Pharmaceutical Conference of that year, and will be found in your journal of that time. The main result of the investigation amounted to the ascertainment that the great bulk of the small amount of copper present in such peas is not absorbed in the system, and that, in consequence, no harm results to health from eating such food.

I see that Professor Charteris, in giving evidence in a case reported in your last issue, admitted that the bulk of the copper would, being in an insoluble form, pass away, and not be absorbed. But this appears to have been given as a mere medical opinion, without reference to the positive evidence which was afforded by the scientific investigation to which I have made previous reference.

The other side would also find the information of real value to them if properly utilised.

As I ventured to state in reply to the discussion which followed the reading of the paper, I now repeat:—"Medical opinion is valueless unless it be based upon those precise facts necessary to its proper formation."

96 Amhurst Park, London, N.,
September 7.

Yours faithfully,
C. T. KINGZETT.

Preparations of Ipecacuanha.

SIR,—In the short note on the above subject contributed to the recent Conference, I seem to have afforded some people amusement, and to have given offence to others, by naming the brand of wine with which I obtained certain results, and one speaker is reported to have said, "he thought it objectionable to advertise particular wines." I quite agree with him that anything done purely as an advertisement in connection with the Conference is exceedingly objectionable. But where is the advertisement in my paper? I simply described the kind of sherry I used, and stated that ipecacuanha wine made with it did not keep well.

What is sherry? I have often wanted to know when reading the literature of ipecacuanha wine. The Pharmacopœia describes sherry as "a Spanish wine. Character: Pale yellowish-brown, containing about 17 per cent. of alcohol." It tells us nothing concerning the nature and amount of the acids and tannins it may contain, and I fail to see any sin in particularising the kind of sherry I used.

In making this tincture or liquor I should recommend 20 per cent. alcohol, and as the quantity of ammonia required is too small to be noticed, being probably, to a great extent, neutralised by the acids natural to ipecacuanha, I should not think it necessary to call the preparation "ammoniated," as it is not to be compared with the ammoniated preparations of the Pharmacopœia.

Budleigh Salterton.

W. H. SYMONS.

Brazil Ipecacuanha.

SIR,—In Saturday's issue you mention the appearance of "Brazil ipecacuanha" at the drug-sales, at the same time stating that the root in question is that of *Richardsonia scabra*. You also quote from a report furnished by Mr. J. C. Umney to the effect that no starch was found in a decoction of the root. This fact indicates that *R. scabra* does not yield this "Brazil ipecacuanha." The root of *R. scabra* does certainly contain a large quantity of starch. Pocklington found it in an authentic specimen; Planchon, in his "Traité Pratique de la Détermination des Drogues Simples d'Origine Végétale," records its presence; and I have verified their statements, using specimens of undoubted origin.

Yours faithfully,

Owen's College, Manchester,
September 7.

WILLIAM KIRKBY.

Euoynimin at the Conference.

SIR,—Mr. P. W. Squire's note in your last issue thoroughly establishes his claim to priority in the use of magnesia as a desiccating agent in the preparation of euoynimin, and I desire to acknowledge his right to that claim. Squire's "Companion" is a book to which I frequently refer, but I must confess to not having seen until to-day the remarks on page 185, 15th edition, and I have not yet seen the 1891 supplement. I am rather glad that such is the case, as otherwise I would not have undertaken the work, and my independent testimony would not have appeared. The discussion on my paper at the Conference clearly showed the difficulty of preparing this article according to the official instructions, and the difficulty, or rather the impossibility, of keeping it in a pulverent form when so prepared. If my paper in any way assists in having the official process improved, I shall feel amply repaid and quite content to be second to "Squire."

Yours truly,

Liverpool, September 5.

M. CONROY.

Free Travel.

SIR,—As you have printed my short paper on "Free Travel," and also the criticisms upon it, I shall be obliged if you will allow me to reply to them. The idea of free travel was approved of by several members of the section of the British Association, and has, of course, many warm supporters outside who were unable to be present at the meeting. Mr. Rowbottom, of London, and also Mr. Williams, L.C.C., spoke in favour of the idea. Mr. Williams pointed out that the removal of charges for travel and transport would greatly decrease the cost of merchandise, to the benefit, of

course, of the consumers. He also pointed out that the experiment in free travel at Woolwich had been a great success, and that no one in the neighbourhood was in favour of the abolition of the free ferry. This ferry carries both passengers and goods without charge. Its beneficial effects have largely increased the trade of the town, and are apparent for many miles in every direction. It has built up the town of North Woolwich across the river, and has greatly increased the value of land in that district. As Mr. Williams explained, the cost of the ferry is paid for out of the rates, but even with this one-sided arrangement the people have found the free ferry a very good investment. If they had merely taxed the unearned increment of the land which came about by making it more accessible through free travel this would probably have been more than sufficient to pay the cost of constructing and running the ferry, but this land value has been presented to the ground landlords in that vicinity, who now get good ground-rents from lands made accessible for buildings which a few years ago were yielding no rent to speak of. Why does not the gentleman who criticises the idea of free travel as "plausible Socialistic nonsense," go down to Woolwich and lecture the public upon their folly? Why does he not tell the people of Hungary who, by their Zone system, charge a fare for the first mile and give the other nine miles free; or, the elevated railway people in New York City who do the same thing, that he and all other men of sense resent their conduct? He might as well say the same thing to the owner of a large building who has put in a lift at the front for passengers and another one at the rear for goods and who gives his tenants on the upper floors the free use of these lifts and takes his pay for the expense and trouble over and over again in increased rents. The owner of the building knows very well that he would be regarded as the greatest fool in town if he should charge fares on the passenger lift or freight on the goods lift, because he would lose more than this amount in rent, and his tenants would be very likely to resent the annoyance of reckonings for fares and freight. In the city of New York, the great Erie canal connecting the lakes with the Hudson River is entirely free for the use of anyone, although it costs the State several millions a year to keep it up. In all probability the place where Surbiton now stands would still be pasture and agricultural land but for the main-line railway station which is located there, and which has made it one of the most readily accessible places round London. If the railway and commercial centre of London had been ten miles further down the river, a different set of ground-landlords would be receiving the 16,000,000% which is annually paid by the people of London in rent for the bare ground.

Free travel would entirely relieve congestion and therefore result in healthier homes and better conditions of labour. Just as free travel in Woolwich and Zone travel in Hungary and New York have enormously enhanced the value of suburban lands, and just as free horizontal travel in lifts is paid for, leaving a profit besides in the shape of increased values for upper floors, so I believe that free travel is perfectly feasible without the necessity of increasing the rates a penny; but would rather result in a great decrease of rates, because an enormous volume of rateable property would be added to the present areas.

No doubt when it was proposed to make roads and bridges free of toll the idea was scouted as "plausible Socialistic nonsense," but we do not know of any one in favour of reimposing such fares and tolls, although they are now paid for out of the rates, which would be quite unnecessary if the land-values created by making them free could be taxed to pay the expense.

Yours truly,

S. M. BURROUGHS.

Snow Hill Buildings, London, E.C., September 10.

Pharmacy at Port Elizabeth.

SIR,—I wish to take this opportunity of thanking you for the benefit and amusement I have derived from your Journal.

I see some of the chemists in England have rather long hours. Here we have them easy, viz.:—From half-past seven to eight at night; on Saturdays to ten, but then we close on Saturday afternoons from two to six; Sundays from nine to one, and from six to half-past eight. We get pretty

good dispensing prices, of which I subjoin a copy. The chemists of this town have a sort of union, and agree to close at certain hours and to charge the same prices.

Port Elizabeth,

Yours faithfully,

August 15.

WMS. (114/70.)

Mixtures.—3 and 4 oz., 1s. 6d., 2s.; 6 oz., 2s. 6d., 2s., 3s.; 8 oz., 4s., 3s., 2s. 6d.; 10 and 12 oz., 4s. 6d., 3s. 6d., 3s.; 16 oz., 5s., 4s. 6d., 4s.; according to dose, ʒij, ʒiv., or ʒj.

Lotions.—1 or 2 oz., 1s. 3d.; 4 oz., 1s. 6d.; 6 or 8 oz., 2s.; 10 oz., 2s. 6d.; 12 oz., 3s.

Pills.—1 to 4, 1s.; 6, 1s. 3d.; 8 to 12, 1s. 6d.; 24, 2s. 6d.; 36, 3s. 6d.; 60, 5s. 6d.; 72, 6s.

Liniments.—½ oz. or 1 oz., 1s. 6d.; 1½ to 2 oz., 2s.; 3 and 4 oz., 2s. 6d.; 6 oz., 3s.; 8 oz., 4s.

Powders.—1 or 2, 1s.; 3, 1s. 3d.; 6 or 8, 2s.; 10 or 12, 2s. 6d.; 18 to 24, 3s. 6d.

Drops.—ʒss. or ʒj., 1s. 6d.; ʒiss. or ʒij., 2s.; ʒiij. and ʒiv., 2s. 6d.; ʒvj., 4s.; ʒviij., 4s. 6d.

Ointment.—¼ and ½ oz., 1s.; 1 oz., 1s. 6d.; 1½ and 2 oz., 2s.; 3 oz., 2s. 6d.; 4 oz., 3s.

The Methylated-Spirit Regulations.

SIR,—We told you, in a former communication, that we had applied to the Board of Inland Revenue, asking what form the sanction would take by which retailers might be supplied by methylated-spirit makers with methylated spirit for use, free of mineral naphtha.

We enclose copy of a letter relative to this received this morning from the Inland Revenue Office.

23 and 24 Redcliff Street, Bristol,

Yours truly,

September 7.

A. & J. WARREN,

Wholesale Druggists and Licensed Makers of Methylated Spirit.

[COPY.]

C. 17452.

1891.

Inland Revenue Office,
Somerset House,
London, W.C.
4th Sept. 1891.

GENTLEMEN,—In reply to your letter, dated the 24th ult., I am directed by the Board of Inland Revenue to acquaint you that in cases where the retailer of methylated spirit is also a user of the spirit under the prescribed regulations, he will be supplied with requisition books applicable to both descriptions of methylated spirit.

I am, Gentlemen,

Your obedient servant,

ALFRED C. TREVOR,

for the Secretary.

Messrs. A. & J. Warren.

Cinnamon in Diarrhoea.

SIR,—It may interest some of your readers to know that cinnamon-powder is highly valued and asked for in attacks of diarrhoea, its astringent property being more marked than we generally credit it. I give a drachm for 1d. It is mixed with a little fresh milk, then made up to ½ pint with milk which is brought to the boil, and allowed to cool. For children ½ drachm is used for same quantity of milk. It is used as a *drink*, stirring the mixture each time. Obstinate cases of diarrhoea in children and aged have yielded to it, and by its carminative properties they have rapidly experienced a comforting and soothing effect. Its great advantage is with children in poor neighbourhoods, where innocent remedies are a *sine quâ non* with the chemist.

BUTTER. 115/43.

Prompt Payment of Salaries.

Manager (116/21) calls our attention to a letter in the *Standard*, in which "Vicar" points out the sufferings sometimes thoughtlessly caused by employers who neglect to pay wages promptly as they become due.

"I have known," says "Vicar," "of cases (and have one now under my notice) where the greatest embarrassment and distress have been caused to a poor family in consequence of a son's wages, which had in an emergency been depended upon, not having been paid when due. Masters, not from any conscious unkindness, but from pure

thoughtlessness of what it must be to have to depend upon a few pounds, instead of a few hundreds or thousands a year, little know what trouble and anxiety they are unwittingly giving to those of their own household, and who are, perhaps, waiting at their own tables.

"Manager" adds: "A great feature connected with the prompt payment of salaries is its safeguard—to a certain extent—against pilfering and dishonesty in handling the employer's money. To wait three months for salary, which I am afraid is still the rule, is bad enough; but the daily waiting beyond that, which sometimes amounts to several weeks, is a trial everyone cannot withstand. Quarterly payment of salaries is old-fashioned, and especially hard upon assistants entering upon their first situation, or the first quarter in a new crib. Experience has taught me that an assistant well-paid, monthly and promptly, is a better remedy for honesty than check-tills, and far pleasanter."

DISPENSING NOTES.

The opinions of practical readers are invited on subjects discussed under this heading.

Hypophosphites with Quinine.

114/5. *Soda*.—The correct method of dispensing

Sodii hypophosph.	..	..	..	..	gr. 64
Calc. hypophosph.	..	..	..	..	gr. 64
Tr. quinine	..	..	..	..	ʒi.
Tr. cardam. co.	..	..	..	..	ʒi.
Aquam ad	..	..	..	..	ʒviij.

M.

A purple-coloured solution with a floating precipitate has been obtained. Rub up the hypophosphites with ʒss. mucil. acacie and water to ʒvj., add the mixed tinctures, and send out with a "shake the bottle" label.

Iodine and Carbolic Acid.

115/15. *Verax* wishes suggestions in dispensing

Iodini	..	..	..	..	ʒiv.
Ac. carbolic. ad	..	..	..	..	ʒij.

M.

He mixed the ingredients in a mortar, and found a thick, muddy precipitate at the bottom; the clear liquor was dispensed. Was he right?

There is no difficulty in obtaining a perfect solution if the ingredients are put in a flask, and heated in a water-bath for a few minutes.

Liniment of Belladonna and Glycerine with Vaseline.

115/28. *Eremacausis* wishes the best method of dispensing

Lin. belladonnae	..	..	..	..	ʒj.
Vasellini	..	..	..	..	ʒss.
Glycerini	..	..	..	..	ʒj.

M.

The best method to obtain a miscible liniment is to use equal parts of glycerine and glycerine of borax, mix with the liniment of belladonna, and add gradually to the vaseline in a mortar.

Liniment of Belladonna, Glycerine, and Lard.

115/44. *Adops Benz*.—How to prepare

Lin. belladonnae	..	..	..	..	ʒiss.
Glycerini	..	..	..	..	ʒij.
Adipis benzoat.	..	..	..	..	ʒiss.

M.

It was prepared by melting the lard in a water-bath, and adding the other ingredients. After a time it separated, and could not be got out of the bottle.

The only way possible is to heat the lard and the liniment in a water-bath until the spirit is nearly all driven off. Then add the glycerine before it cools, and stir until cool.

LEGAL QUERIES.

108/70. *W. P.* writes:—"A child has found a half-sovereign in my shop. I have advertised it in the window, but without result. Who is the owner under the circumstances?"

The owner of the half-sovereign is, of course, the person who lost it, and if such owner were known to the party who found it, or to our correspondent, the party having such knowledge would be guilty of larceny in appropriating it. As, however, the owner is not known, and every effort has been made to find such owner, we think the half-sovereign belongs to the finder, although several technical legal points might be raised if the half-sovereign is in the possession of our correspondent. It would be wise, if it is in his possession, to retain it for some time, until there is a reasonable probability of the true owner not turning up, so that if the half-sovereign can be traced into his possession the legal owner might recover it.

114/49. *Quero* asks whether methylated collodion and methylated ether may be used in the preparation of a proprietary article for sale for external use only?—As the Act of Parliament permits the manufacture of ether from methylated spirit, the result being the so-called methylated ether, but which is in fact simply ether, we do not see that the Board of Inland Revenue have any control over the use or sale of this substance. Methylated collodion, being, we suppose, collodion, in the preparation of which methylated instead of rectified spirit has been used, is not quite a similar case; and it would perhaps be wise to get the special authorisation of the Board before selling a speciality made with it.

113/24. *J. S.*—The law does not require that a medical man shall be present when you administer anaesthetics in dentistry, but you are not prudent in taking the risk without having a qualified man to take part in the operation. If a fatal result should occur on any occasion a jury would, very properly, require more specific evidence of its purely accidental nature than they would in the case of a man certified to be competent. Committal for manslaughter is a possible result.

116/48. *Prescriber*.—The doctor has the right to compound prescriptions; so have you. If you can prove satisfactorily that the doctor has told anyone that you are not competent to do such work, you would have ground for an action for slander. But you had better not waste time in law.

117/17. *Nursery*.—You must get the authorisation of the Board of Inland Revenue before you can use methylated spirit in the preparation you name.

117/7. *Anxious*.—We should not ourselves consider your blue design with the word "borax" on it any infringement of the trade-mark which appears on the circular you enclose. Nobody can get exclusive rights in the word "borax"; the only infringement could be an imitation of the general design.

MISCELLANEOUS INQUIRIES.

A large number of correspondents ask us for formulæ and other information already published in this journal. It is not fair to more careful readers that we should frequently repeat such information, and so long as the back numbers containing the formulæ or replies required are in print we must decline to do so. Back numbers of our weekly issue can be obtained from the publisher at 4d. each.

133/33. *T. J. W.*—As an application, similar to the sample sent, for Foot-rot in Sheep try honey 4 oz., verdigris 1 oz., alum ½ oz., bole ½ oz., vinegar 4 oz. Mix with a gentle heat; darken the colour with lampblack q s.

THE NEW DRUGGIST'S LABEL CABINET

(PATENTED).



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The Editor of THE CHEMIST AND DRUGGIST says:—"A very neat, useful article, really well made, and wonderful value for money."

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Each Capsule equal to $\frac{1}{2}$, $\frac{1}{4}$, or 1 teaspoonful of Fluid Extract of Cascara Sagrada. They can also be had in combination with $\frac{1}{2}$ or 1 grain of EUONYMIN.
In Boxes at 1/6 and 2/6; 14/- and 24/- per dozen. (Also in Bulk.)

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In 3 sizes, equivalent respectively to 1, 2, or 3 Bland's Pills.

These Capsules differ from all others, and have advantages which no others possess. They are made from Pure Unoxidised Carbonate of Iron by special process. They are so prepared that, while they retain indefinitely the full efficacy of fresh Bland's Pills, they have no tendency to become hard and insoluble by keeping, as the pills often do. They are small in size. Owing to the special process adopted by D., F. & Co., the 3-pill Capsule is hardly larger than a single Bland's Pill. They are soft and flexible, and much more easily swallowed than pills.

They can be had in combination with Arsenic, Nux Vomica, &c. In Boxes at 1/-, 1/9, and 2/6; 8/-, 15/-, and 22/- per dozen. (Also in Bulk.)

EASTON'S SYRUP CAPSULES.

Each Capsule equivalent to 20, 30, or 60 minims of Easton's Syrup.

In Boxes at 1/-, 1/9, and 2/6; 16/-, 17/-, and 24/- per dozen. (Also in Bulk.)

SYRUP. HYPOPHOS. COMP. (Duncan's.)

Some time since we had several samples of well-known SYRUP. HYPOPHOS. OOMP. analysed by Mr. D. B. DOTT, F.R.S.E., F.I.C., Ph.C., and in no one case did he find so large a proportion of the active constituents as is found in our preparation by a precisely similar analysis—which analysis is an absolute proof that the proportions of the different ingredients which we state are in our Syrup ARE ACTUALLY PRESENT. We, therefore, submit that from the use of our Syrup the best results may be confidently anticipated.

In proof of our statements we subjoin the report of Analysis referred to.

NOTE.—Our Syrup will darken in colour by lengthened keeping; and so must every Syrup which contains a similar proportion of FERROUS Hypophosphite.

"Analysis of SYRUP. HYPOPHOS. COMP. (grains per drachm)."

	Duncan's	No. 1	No. 2	No. 3	No. 4
Hypophosphite of Quinine ..	·25	·14	·11	·69	·12
" " Iron	·77	·72	·10	·23	·15
" " Manganese	·27	·22	·00	·16	·08
" " Calcium.....	1·04	·00	·83	·01	·15
" " Potassium..	1·00	·68	1·48	·24	·29
" " Sodium	1·53	1·45	1·54	·29	·29
The quantity of STRYCHNINE present was not determined. Our Syrup contains $\frac{1}{100}$ grain in each fluid drachm.					

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THE ORIGINAL MANUFACTURERS.

Each fluid drachm contains one grain of Quinine, two grains of Iron, and the 32nd part of a grain of Strychnine.

This SYRUP (prepared under the direction of the late Dr. EASTON) has been prescribed both at Home and Abroad for more than a quarter of a century, and pronounced by the highest Medical authorities to possess Tonic powers far exceeding all other preparations. It is always uniform in character, and, owing to its careful mode of preparation, has never been known to produce any unpleasant symptoms.

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CAFFEINE CITRATE ... 3 grains to 5j.
CAFFEINE HYDROBROMATE ... 3 " "
LITHIA CITRATE... 5 " "
LITHIA BENZOATE ... 5 " "
LITHIA SALICYLATE ... 5 " "

SODA SULPHATE ... 10 grains to 5j.
SODA SALICYLATE ... 10 " "
POTASH CITRATE ... 10 " "
PHENACETIN ... 5 & 10 " "
QUININE SALICYLATE ... 1 " "

CITRATE MAGNESIA,

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CAFFYN'S

LIQUOR CARNIS AND RAW BEEF JUICE PREPARATIONS.

MEDICAL PRESS.

Reprinted from *The Journal of Laryngology and Rhinology*,
 June, 1891.

LIQUOR CARNIS PREPARATIONS (CAFFYN)

We have previously had occasion to speak in commendation of these productions, and we have now to notice two preparations which have been forwarded to us by the manufacturers.

Caffyn's Malto-Carnis.—This contains two-thirds or 66 per cent. of Caffyn's Liquor Carnis, in combination with Extract of Malt and Cocoa, and a dessert-spoonful may be added to milk and sweetened to taste in a breakfast cup. The problem of combining a diffusible stimulant with easily assimilated animal food seems to have been met, and the preparation should be very valuable for weak digestions, cases of nervous depression, &c., and also to travellers, who will thus have at hand, in concentrated form, a very strong and highly nutritive food stuff. Our experiments with this preparation lead us to conclude that it is all that the manufacturers claim for it, and that it is a most valuable preparation of novel character.

Caffyn's Liquor Carnis.—This is of undoubted excellence, and we have on a previous occasion reported most favourably of its value in the sick room. Further experience has confirmed us in this expressed opinion, and we believe it to be undoubtedly one of the purest, most trustworthy and satisfactory preparations in the market.

The British and Colonial Druggist of August 21st says:—"The Liquor Carnis Company have prepared a nutritive Suppository of their Liquor Carnis, and thus made their speciality available for use in those cases where, by organic disease or extreme debility, the ordinary means of taking nourishment are cut off. The advantages for the patient of this method of rectal nutrition over the older method of administering fluid enemata are evident. It is, however, essential that when Suppositories are used they should contain the nutritive matter in a form in which it can be readily absorbed by the intestine. Liquor Carnis is especially adapted for this purpose, and as each Suppository is made to contain the equivalent of two drachms of that substance, it would seem that one or two administered every three hours will supply a sufficiency of nourishment to support the system. The Suppositories are well made, each being separately wrapped in muslin, and are put up in boxes of one dozen to retail at 2s. 6d."

The Dublin Journal of Medical Science says: "It is rich in Albuminoids, and contains no excess of salts or nitrogenous waste matter."

The British Medical Journal, August 23rd, 1890, says:—"Caffyn's Liquor Carnis is undoubtedly a nourishing fluid, consisting of the Uncooked Juice of Meat, or muscle-plasma, permanently preserved by the addition of a definite quantity of a carbo-hydrate . . . a valuable Food and Tonic for Infants and Invalids."

Again, on 28th March, 1891:—"We have examined specimens of this preparation, and find that the statements made by the proprietors as to its composition are substantially correct. It is a brownish-red fluid of very sweet taste and slight acidity, and is rich in unaltered albuminoids, having, no doubt, been obtained from flesh by a acid process."

The Lancet, July 12th, 1890, says:—"This is evidently a meat extract prepared in the cold and preserved by glycerine. It is extremely rich in nitrogen, and the ash contains phosphates in considerable quantity. So well are the soluble albuminoids of the meat preserved that the fluid when heated turns into a semi-solid jelly. It is a really valuable nutrient."

Again, on April 4th, 1891, says:—"We have already had occasion to examine this excellent preparation. Caffyn's Liquor Carnis is now flavoured with a dash of celery, which gives it a very pleasant taste. That this in no way interferes with the admirable condition in which the meat juice is preserved in the cold is evident from the fact that the simple experiment of boiling resulted in the coagulation of the fluid."

The Lancet, August 29th, 1891:—

ANALYTICAL RECORDS

CAFFYN'S MALTO-CARNIS.

The Liquor Carnis Co., Lim., 50 Holborn Viaduct.

The title sufficiently describes this preparation, and our examination confirms the description. From the presence of uncooked juice of beef, and consequently meat albumen, it turns semi-solid on heating, and the cold filtered extract rapidly digests starch, while the presence of cocoa is evident to the taste. Analysis showed mineral matter 2.50 per cent.; rich in soluble phosphates; total solid matter, dried at 100° C., 66.28 per cent. Nutritious and stimulating elements like these are rarely found combined in so satisfactory a manner as in this new and interesting preparation of The Liquor Carnis Company.

"We have experimentally proved that LISTERINE is a powerful Antiseptic, preventing the development of Bacteria and Decomposition of Vegetable Infusions."—*British Medical Journal*, May 3, 1890.

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**ANTISEPTIC, PROPHYLACTIC, DEODORANT, NON-TOXIC,
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FORMULA.—Listerine is the essential antiseptic constituent of Thyme, Eucalyptus, Baptisia, Gaultheria, and Mentha Arvensis, in combination Each Fluid Drachm also contains two grains of refined and purified Benzo-boracic Acid.

DOSE.—Internally: One Teaspoonful three or more times a day (as indicated), either full strength or diluted, as necessary for varied conditions.

LISTERINE is a well-proven antiseptic agent—an antizymotic—especially useful in the management of catarrhal conditions of the mucous membrane, adapted to internal use, and to make and maintain surgical cleanliness—asepsis—in the treatment of all parts of the human body, whether by spray, irrigation, atomization, or simple local application, and therefore characterised by its particular adaptability to the field of

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LISTERINE destroys promptly all odours emanating from diseased gums and teeth, and will be found of great value when taken internally in teaspoonful doses, to control the fermentative eructations of dyspepsia, and to disinfect the Mouth, Throat, and Stomach. It is a

PERFECT TOOTH AND MOUTH WASH,

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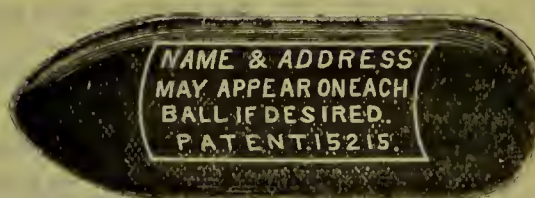
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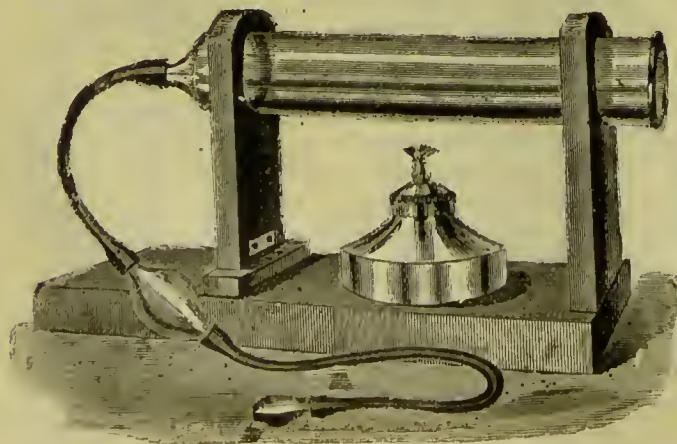
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164 Pulv. Ipecac. Co., Gum. Ammon., Pulv. Scilla, Saponis	0 7
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458 Aloin, Podophyllin, Ext. Hyoscy., Jalapin., Ext. Nucis Vom., Capsicin.	5 0
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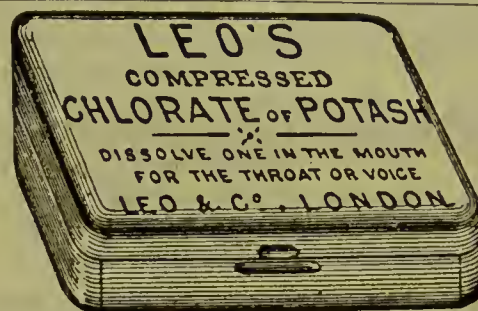
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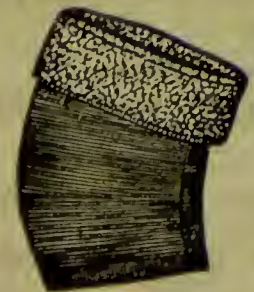
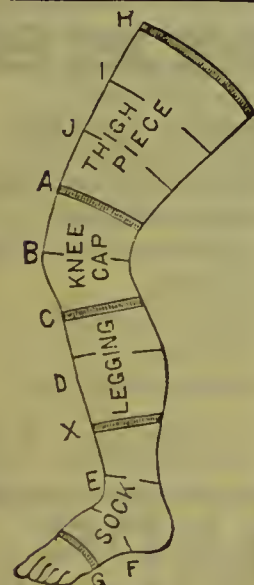
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Guaranteed free from ARSENIC

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Gives a brilliant shell-like transparency to the Nails 2/6 .. 18/-

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Cures or alleviates irritation and skin diseases.

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From the above woodcut, which represents the most recent idea placed
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It is made of metal, elegantly ornamented with neat designs in colours,
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This Change Dish is readily handed to a customer, and its use being
plainly printed upon it, customers will understand its presence, and put
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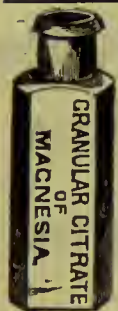
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DISPENSING BOTTLES & PHIALS. REDUCED PRICES.

3 and 4 oz., 7/6; 6 and 8 oz., 8/6; 12 oz., 12/-; 16 oz., 16/- per gross.

CRYSTAL (BLUE TINTED).

3 and 4 oz., 9/-; 6 and 8 oz., 10/-; 12 oz., 14/-; 16 oz., 18/- per gross.

WHITE PHIALS.

$\frac{1}{2}$ oz., 3/8; 1 oz., 4/-; $1\frac{1}{2}$ oz., 4/9; 2 oz., 5/6 per gross.

WHITE PHIALS (SUPERIOR QUALITY).

$\frac{1}{2}$ oz., 4/3; 1 oz., 5/3; $1\frac{1}{2}$ oz., 5/9; 2 oz., 6/3 per gross.

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GARDNER'S

PATENT COMBINED

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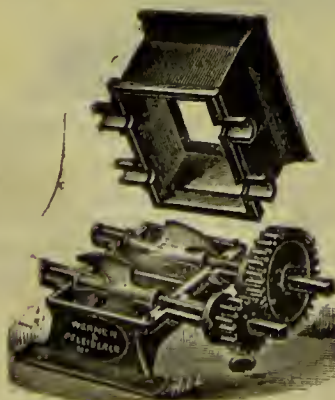


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FOR HAND OR POWER. Capacities from 15 to 200 lbs. at one mixing.



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Pill Cutting, Pill Rounding, Pipers, and all other Machines for
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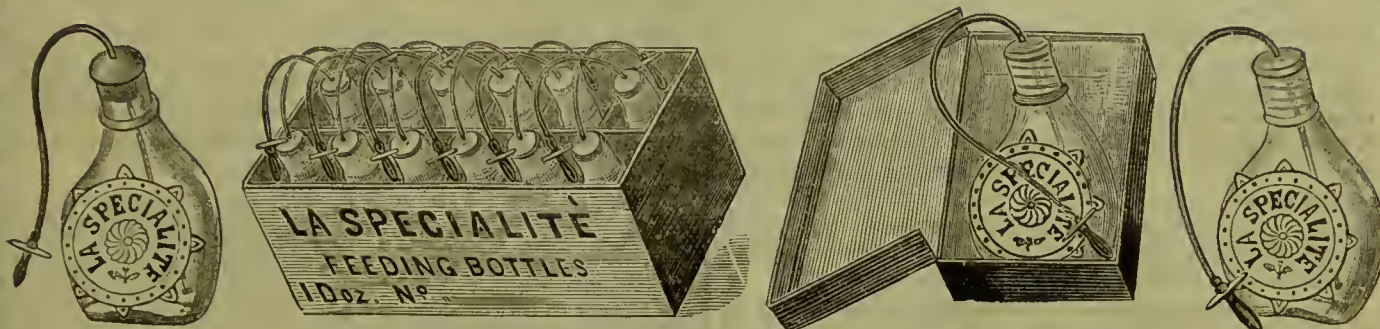
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No.	Each Bottle in Paper Bag	NET Per Gross LONDON.	No.	In Divisioned Wood Boxes of One Doz. each.	NET Per Gross LONDON.
WHITE RUBBERS.			WHITE RUBBERS.		
51	Green Bottle, Boxwood-topped Cork ...	23/-	59	Green Bottle, Boxwood-topped Cork ...	27/6
52	White " " ...	25/-	60	White " " ...	30/-
53	Green " Screw Glass Stopper ...	26/6	61	Green " Screw Glass Stopper ...	31/-
54	White " " ...	28/6	62	White " " ...	33/-
BLACK RUBBERS.			BLACK RUBBERS.		
55	Green Bottle, Boxwood-topped Cork ...	26/6	63	Green Bottle, Boxwood-topped Cork ...	31/-
56	White " " ...	28/6	64	White " " ...	33/-
57	Green " Screw Glass Stopper ...	30/-	65	Green " Screw Glass Stopper ...	34/6
58	White " " ...	32/-	66	White " " ...	36/6

IN QUANTITIES OF NOT LESS THAN ONE GROSS.

Any of the above fitted Glass Unions at 2s. 6d. per gross extra.

These Bottles have been prepared specially to meet the demand for Cheap Feeding Bottles, attractive in appearance and of good quality, but without any Maker's Name on Bottles or Boxes.

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A Sample of any kind sent per Parcels Post paid for 6 stamps. Bent Neck Bottles are always sent unless Straight Necks are specially ordered.

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CHEMISTS' AND DRUGGISTS' BOTTLES AND GLASSWARE MANUFACTURERS.

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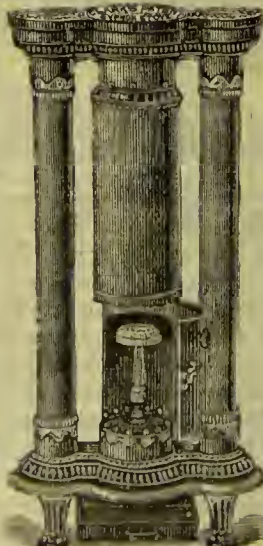
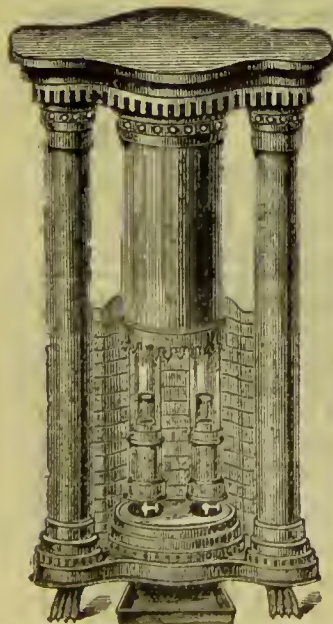
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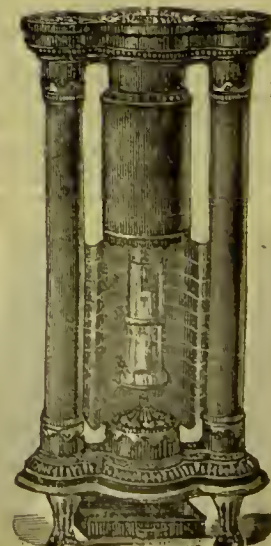
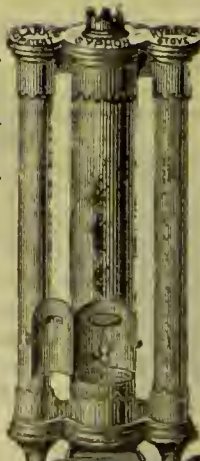
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